

UNITED STATES DEPARTMENT OF COMMERCE

HENRY A. WALLACE, *Secretary*WEATHER BUREAU - - F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

MAY 1945

CONTENTS

	Page		Page
METEOROLOGICAL AND CLIMATOLOGICAL DATA:		SOLAR RADIATION AND SUNSPOT DATA—Continued.	
Aerological Observations.....	81	Positions, Areas, and Counts of Sunspots.....	94
River Stages and Floods.....	85	Provisional Relative Sunspot Numbers for April	
Climatological Data.....	88	1945.....	96
SOLAR RADIATION AND SUNSPOT DATA:		CHARTS I-XI (Chart VII, snowfall, omitted until November).	
Solar Radiation Observations.....	93		



MONTHLY WEATHER REVIEW

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MAY 1945

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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR MAY 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during May 1945

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Number of ob- servations	Albany, N. Y. (86 m.)			Albuquerque, N. Mex. (1,620 m.)			Apalachicola, Fla. (5 m.)			Atlanta, Ga. (300 m.)			Big Spring, Tex. (774 m.)			Bismarck, N. Dak. (505 m.)			Boise, Idaho (868 m.)								
		Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity				
Surface	31	1,001	10.8	78	31	834	20.7	19	31	1,015	21.3	82	31	981	17.7	71	31	923	23.8	37	30	956	9.3	59	31	912	15.0	58
500	31	953	9.3	74	31	797	18.9	20	31	960	20.4	64	31	958	18.4	62	31	899	22.7	36	30	900	8.1	54	31	898	15.2	51
1,000	31	897	6.6	75	31	707	15.3	21	31	905	17.6	57	31	904	16.0	59	31	849	20.0	35	30	847	4.8	58	31	846	12.3	46
1,500	31	844	4.4	74	31	659	12.9	20	31	854	15.1	49	31	852	13.0	58	31	801	17.2	30	30	796	1.5	61	31	796	8.3	49
2,000	31	793	1.3	75	31	572	9.9	21	31	804	12.1	46	31	802	10.4	47	31	755	14.1	27	30	748	-1.5	61	31	780	4.2	54
2,500	31	745	-1.9	72	31	529	7.1	19	31	757	9.2	43	31	756	7.6	42	31	711	10.7	28	30	702	-4.2	63	31	704	0.2	58
3,000	31	699	-4.6	67	31	485	-7.1	18	31	712	6.3	40	31	710	4.6	38	31	630	2.6	33	30	618	-9.8	61	31	621	-6.9	63
3,500	31	615	-9.2	55	31	424	-15.4	18	31	630	0.3	35	30	628	-1.6	36	31	555	-5.5	30	30	542	-15.9	50	30	546	-13.4	62
4,000	31	540	-15.3	53	31	370	-29.3	28	30	556	-6.3	39	29	552	-8.8	40	30	488	-13.1	43	30	474	-22.7	30	30	478	-20.6	57
4,500	31	472	-22.0	30	30	320	-36.8	28	30	488	-12.8	29	29	485	-15.6	41	30	427	-19.9	30	30	413	-30.0	30	30	417	-28.2	57
5,000	31	411	-29.4	29	30	277	-44.3	28	30	427	-19.4	29	29	424	-22.4	30	30	373	-27.3	29	30	358	-37.6	30	30	361	-36.0	57
5,500	31	308	-43.2	28	30	238	-51.2	28	30	373	-26.0	29	29	369	-29.7	29	29	323	-34.8	29	30	308	-45.0	30	30	312	-43.7	57
6,000	31	265	-49.2	28	30	203	-57.4	28	30	280	-42.1	28	28	276	-44.2	29	29	280	-42.2	28	28	265	-51.3	28	28	269	-50.3	57
6,500	31	228	-53.3	28	30	173	-59.3	27	30	241	-49.8	28	28	237	-51.4	29	29	241	-49.6	26	26	227	-54.9	26	26	231	-55.4	57
7,000	27	195	-55.2	28	30	147	-60.1	27	30	207	-56.3	25	25	202	-57.3	29	29	206	-56.2	22	22	194	-63.8	25	25	196	-66.7	57
7,500	26	166	-66.6	22	30	126	-61.6	19	30	176	-60.3	25	25	173	-58.8	26	26	176	-60.4	18	18	166	-63.4	21	21	167	-66.2	57
8,000	17	141	-66.3	19	30	107	-64.2	17	30	150	-62.1	19	19	147	-59.9	19	19	150	-62.0	15	15	142	-62.9	14	14	143	-65.5	57
8,500	15	121	-66.4	14	30	92	-67.5	12	30	128	-64.3	15	15	125	-60.8	12	12	128	-64.5	10	10	122	-64.3	10	10	122	-66.0	57
9,000	11	104	-67.5	10	30	89	-67.4	8	30	108	-66.8	10	10	106	-61.9	7	7	108	-67.6	8	8	105	-55.6	6	6	104	-57.6	57
10,000	7	89	-67.4	7	30	89	-67.4	7	30	92	-67.5	6	6	90	-63.2	6	6	90	-67.6	7	7	90	-67.6	6	6	90	-67.6	57

Altitude (meters) m. s. l.	Number of ob- servations	Brownsville, Tex. (6 m.)			Buffalo, N. Y. (221 m.)			Caribou, Maine (193 m.)			Charleston, S. C. (14 m.)			Denver, Colo. (1,616 m.)			Dodge City, Kans. (787 m.)			El Paso, Tex. (1,185 m.)								
		Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity				
Surface	31	1,012	24.1	81	30	986	8.9	82	31	990	7.7	79	30	1,014	17.9	86	22	835	13.5	52	31	921	15.3	66	31	878	25.9	15
500	31	956	21.4	76	30	953	8.3	75	31	953	6.8	72	30	958	19.3	61	22	835	13.5	52	31	898	15.9	58	31	848	24.7	15
1,000	31	903	21.0	46	30	897	6.1	74	31	903	4.2	72	30	904	16.1	57	22	835	13.5	52	31	847	14.2	53	31	800	20.6	16
1,500	31	852	19.4	34	30	844	3.4	75	31	843	1.3	72	30	852	13.2	55	22	797	12.4	47	31	798	12.0	50	31	755	16.7	16
2,000	31	803	17.2	30	30	793	0.6	73	31	792	-1.7	76	30	803	10.2	53	22	751	9.3	49	31	752	9.4	43	31	711	12.2	21
2,500	31	758	14.3	30	30	745	-2.3	73	30	744	-4.7	72	30	756	7.3	50	22	707	5.7	51	31	707	6.4	39	31	630	3.5	28
3,000	31	713	11.0	30	30	699	-4.6	63	30	698	-6.8	69	30	711	4.4	48	22	624	-1.6	59	31	625	-0.5	40	31	556	-4.7	40
3,500	31	632	4.2	32	29	615	-10.3	63	30	613	-12.2	65	30	628	-1.8	47	22	550	-9.1	66	31	551	-7.9	49	31	489	-12.1	30
4,000	30	558	-3.1	36	29	539	-15.8	59	30	537	-17.9	53	30	553	-8.1	41	22	482	-16.3	31	31	484	-14.9	49	30	428	-19.3	30
4,500	27	491	-9.9	26	26	472	-22.1	26	30	469	-24.4	26	30	485	-14.8	38	20	422	-23.5	31	31	423	-21.9	29	29	374	-26.7	30
5,000	27	430	-17.0	26	411	-29.5	25	356	29	408	-31.5	28	371	-28.4	28	371	20	367	-31.1	31	31	368	-29.6	28	28	324	-34.1	30
5,500	27	376	-24.6	25	356	-36.8	29	307	29	305	-45.7	28	322	-35.4	28	322	20	318	-39.1	31	31	319	-37.2	27	27	281	-41.7	30
6,000	27	327	-32.4	23	307	-43.6	27	261	27	261	-51.1	24	278	-43.5	24	278	19	274	-47.2	28	28	276	-45.0	26	26	241	-49.3	30
6,500	28	283	-39.9	23	264	-48.7	21	227	22	224	-52.8	23	240	-51.0	23	240	14	201	-59.8	26	26	202	-57.6	24	24	207	-55.4	30
7,000	25	244	-47.1	21	214	-55.1	15	164	15	164	-53.2	18	175	-57.0	21	175	10	171	-61.0	25	25	172	-60.4	21	21	177	-59.6	30
7,500	23	209	-54.4	21	194	-55.1	12	140	12	140	-53.5	12	140	-53.5	19	149	6	146	-60.9	21	21	147	-59.9	16	16	151	-61.9	30
8,000	16	152	-64.4	9	121	-62.9	9	121	9	121	-62.9	10	120	-62.5	13	127	13	127	-62.5	18	18	124	-60.2	6	6	128	-61.2	30
8,500	13	129	-68.0	7	103	-64.7	7	103	7	103	-64.7	6	103	-63.8	7	109	7	109	-63.8	9	9	150	-61.1	5	5	110	-64.1	30
9,000	9	110	-71.0	5	88	-55.3	5	88	5	88	-55.3	5	88	-55.3	5	88	5	88	-55.3	7	7	91	-62.3	5	5	91	-62.3	30

Altitude (meters) m. s. l.	Number of ob- servations	Ely, Nev. (1,908 m.)			Glasgow, Mont. (648 m.)			Grand Junction, Colo. (1,414 m.)			Great Falls, Mont. (1,128 m.)			Greensboro, N. C. (273 m.)			Hatteras, N. C. (3 m.)			Havana, Cuba (51 m.)								
		Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity				
Surface	31	806	11.7	47	31	938	12.0	50	31	854	18.7	30	31	886	10.9	53	30	982	15.2	73	31	1,015	18.3	78	31	958	16.6	65
500	31	806	11.7	47	31	938	12.0	50	31	854	18.7	30	31	886	10.9	53	30	982	15.2	73	31	1,015	18.3	78	31	958	16.6	65
1,000	31	806	11.7	47	31	938	12.0	50	31	854	18.7	30	31	886	10.9	53	30	982	15.2	73	31	1,015	18.3	78	31	958	16.6	65
1,500	31	806	11.7	47	31	938	12.0	50	31	854	18.7	30	31	886	10.9	53	30	982	15.2	73	31	1,015	18.3	78	31	958	16.6	65
2,000	31	797	12.0	43	31	790	2.3	61	31	796	15.6	29	31	847	6.9	51	30	849	10.1	59	31	830	13.3	61	31	800	7.4	59
2,500	31	751	9.3	40	31	748	-1.0	64	31	751	11.4	32	31	797	6.1	55	30	799	7.1	58	31	783	4.5	58	31	708	1.7	54
3,000,																												

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during May 1945—Continued

Altitude (meters) m. s. l.	Huntington, W. Va. (172 m.)				International Falls, (343 m.)				Jackson, Miss. (97 m.)				Joliet, Ill. (178 m.)				Lake Charles, La. (5 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)			
	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity
Surface	31	994	13.3	81	31	974	7.2	63	31	1,003	19.3	76	31	992	10.6	79	31	1,014	21.0	85	30	1,004	18.9	75	31	994	15.1	75
500	31	956	14.1	69	31	955	7.2	58	31	957	19.3	66	31	954	10.8	68	31	958	19.1	76	30	957	18.1	65	31	955	14.7	67
1,000	31	901	11.0	70	31	899	3.9	60	31	903	16.4	64	31	898	8.4	69	31	904	17.4	55	30	902	15.1	62	31	900	11.7	67
1,500	31	848	7.8	70	31	845	0.4	65	31	851	14.7	53	31	845	5.9	69	31	853	15.9	44	30	850	13.1	54	31	848	8.6	67
2,000	31	798	5.0	70	31	793	-2.9	68	31	802	12.7	42	31	795	3.5	65	31	804	14.0	35	30	801	11.0	49	31	797	6.0	65
2,500	31	750	2.5	63	31	744	-5.5	64	31	756	9.8	42	31	748	1.0	61	31	758	11.5	52	30	754	8.6	40	31	750	3.7	60
3,000	31	705	-0.1	58	31	698	-7.9	51	31	711	6.8	40	31	702	-1.6	58	31	713	8.4	33	30	709	5.7	37	31	705	1.0	60
3,500	30	622	-5.8	56	30	613	-13.2	51	31	629	0.1	40	30	618	-7.2	59	31	631	1.3	37	30	627	-0.8	36	31	622	-4.9	56
4,000	29	547	-11.7	55	29	537	-19.2	51	31	554	-6.9	45	30	543	-12.9	55	30	556	-5.4	36	30	553	-8.1	41	31	547	-11.2	58
4,500	29	479	-18.2	49	29	469	-25.5	51	31	487	-13.7	45	30	476	-19.8	50	30	489	-12.1	29	29	485	-15.6	44	30	479	-18.1	56
5,000	29	418	-25.4	49	27	408	-32.6	49	31	426	-20.3	45	30	415	-27.2	50	30	429	-19.2	29	29	424	-22.8	49	30	419	-25.1	51
5,500	29	364	-32.8	49	27	352	-39.9	49	31	372	-27.4	45	30	360	-34.7	50	30	374	-26.7	28	28	369	-30.1	49	30	364	-32.3	51
6,000	29	315	-39.8	49	27	304	-46.3	49	31	322	-35.2	45	30	311	-42.0	50	29	324	-34.6	28	28	320	-37.5	49	29	315	-39.7	51
6,500	29	271	-46.6	49	27	261	-51.1	49	31	279	-42.9	45	28	268	-48.1	50	28	281	-42.2	28	28	276	-44.8	49	28	271	-46.1	51
7,000	29	233	-52.8	49	27	224	-53.6	49	30	240	-50.4	45	26	230	-53.2	50	26	242	-49.8	28	28	237	-51.8	49	27	234	-52.5	51
7,500	28	199	-56.8	49	27	191	-53.1	49	29	205	-56.7	45	24	196	-56.6	50	24	207	-56.3	28	28	203	-57.6	49	22	200	-57.8	51
8,000	22	170	-59.1	49	24	164	-51.7	49	29	175	-60.7	45	20	168	-57.6	50	24	177	-61.2	25	25	178	-60.6	49	20	170	-59.4	51
8,500	14	144	-67.9	49	20	140	-51.6	49	22	149	-62.0	45	19	144	-58.0	50	19	150	-64.5	21	21	147	-60.9	49	14	146	-60.0	51
9,000	11	123	-68.8	49	14	120	-52.0	49	18	127	-63.9	45	13	123	-59.2	50	11	128	-66.2	13	13	125	-62.3	49	10	124	-61.0	51
9,500	6	106	-69.3	49	10	103	-52.6	49	10	107	-65.5	45	12	105	-59.8	50	9	106	-64.0	9	9	106	-64.0	49	9	106	-64.0	51
10,000	6	106	-69.3	49	6	89	-52.8	49	8	107	-65.5	45	7	90	-62.1	50												

Altitude (meters) m. s. l.	Mazatlan, Mexico (80 m.)				Medford, Oreg. (409 m.)				Merida, Mexico (27 m.)				Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)			
	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity
Surface	28	1,003	24.3	80	31	966	16.3	61	31	1,009	27.6	63	31	1,016	23.0	75	31	993	17.2	76	29	916	12.1	66	31	1,016	13.8	79
500	28	956	24.2	46	31	957	15.9	60	31	957	24.8	60	31	950	20.9	74	31	956	16.3	69	29	899	12.1	60	31	958	10.4	74
1,000	28	903	24.0	35	31	902	12.7	62	30	904	22.4	55	31	906	17.9	70	31	902	13.4	69	29	899	12.1	60	31	902	10.3	58
1,500	28	853	21.2	38	31	849	9.1	67	30	853	19.4	57	31	855	15.3	64	31	850	10.4	68	29	847	10.1	55	31	849	9.2	46
2,000	28	804	18.3	35	31	799	5.5	72	30	804	15.9	58	31	805	12.8	53	31	800	8.0	59	29	797	7.9	56	31	799	6.8	41
2,500	28	759	15.4	34	31	752	2.1	72	30	758	12.3	58	31	759	10.2	45	31	753	5.6	58	29	750	5.7	56	31	752	3.8	39
3,000	28	715	12.2	26	31	705	-1.0	68	30	714	9.4	47	31	714	7.5	44	31	708	2.9	56	29	705	2.8	54	31	706	0.7	41
3,500	25	633	5.4	32	30	622	-7.3	60	30	632	3.9	30	31	632	2.0	35	28	625	-3.0	51	29	623	-3.6	54	31	623	-6.2	46
4,000	25	560	-2.1	30	30	546	-14.1	55	25	559	-1.9	28	31	557	-4.3	33	28	550	-9.7	50	29	548	-10.5	59	31	547	-13.0	54
4,500	25	492	-9.3	30	30	478	-21.2	55	25	492	-8.2	28	31	490	-10.5	33	28	482	-16.3	48	29	480	-17.6	59	31	480	-19.9	47
5,000	23	432	-16.8	28	28	417	-28.8	55	25	432	-15.1	28	31	430	-17.2	33	28	422	-23.5	48	29	420	-24.5	59	31	418	-27.0	51
5,500	21	377	-24.3	25	25	361	-37.2	55	25	377	-21.8	28	31	375	-24.6	33	28	367	-30.9	48	29	365	-31.8	59	30	363	-34.4	51
6,000	21	328	-32.1	24	24	312	-44.0	55	25	328	-20.3	28	31	326	-32.1	33	28	318	-38.1	48	29	316	-39.5	59	30	314	-41.7	51
6,500	20	285	-39.8	24	24	268	-49.5	55	25	285	-37.2	28	31	283	-39.7	33	26	274	-45.4	48	29	272	-47.2	59	30	270	-47.7	51
7,000	18	245	-47.7	22	23	230	-53.4	55	25	246	-45.1	28	31	244	-47.3	33	25	236	-51.9	48	29	232	-54.8	59	30	232	-52.0	51
7,500	15	210	-55.3	22	18	196	-55.7	55	23	211	-52.6	28	31	209	-54.6	33	23	202	-57.2	48	29	199	-59.0	59	28	199	-55.2	51
8,000	8	178	-61.0	18	16	167	-66.0	55	18	181	-59.2	28	26	178	-60.2	33	22	173	-59.7	48	19	170	-60.6	59	25	169	-66.6	51
8,500				16	14	143	-64.9	55				25	152	-64.4	33	18	147	-60.5	48	12	145	-60.0	59	22	145	-66.2	51	
9,000				12	12	122	-65.5	55				13	129	-67.1	33	14	125	-60.7	48	10	123	-60.0	59	12	124	-66.7	51	
9,500				8	8	105	-64.3	55				6	109	-68.8	33	11	106	-61.5	48	5	105	-59.3	59	5	105	-66.4	51	
10,000				6	6	90	-64.7	55																				

Altitude (meters) m. s. l.	Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)				Omaha, Nebr. (308 m.)				Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)			
	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity	Number of servations	Pressure	Temperature	Relative humidity
Surface	30	860	15.0	48	31	966	17.9	72	27	978	15.0	66	31	969	26.0	20	30	968	12.4	68	30	1,010	8.2	85	24	902	8.9	64
500					31	954	18.2	67	27	956	14.6	62	31	951	27.6	15	30	955	12.3	65	30	954	8.8	69				

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidities in percent, obtained by radiosondes during May 1945—Continued

Altitude (meters) m. s. l.	St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)				San Antonio, Tex. (240 m.)				San Juan, P. R. (15 m.)				Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (598 m.)				
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	
Surface	30	994	14.6	76	31	987	11.6	59	31	985	22.8	69	31	1,013	24.6	85	31	1,008	12.3	85	31	967	5.5	79	31	942	15.5	58	
500	30	956	13.8	68	31	955	10.1	55	31	956	22.1	66	31	959	21.6	83	31	958	10.5	83	31	954	6.3	65	31	955	14.0	59	
1,000	30	902	11.2	67	31	899	6.9	59	31	902	19.5	60	31	905	18.6	80	31	902	10.8	61	31	897	3.7	61	31	899	13.7	49	
1,500	30	848	9.0	65	31	845	3.7	62	31	851	17.9	45	31	853	15.9	77	31	850	10.7	46	31	843	1.0	60	31	846	9.6	54	
2,000	30	798	6.9	62	31	794	0.4	61	31	802	16.2	33	31	804	13.9	71	31	800	7.9	43	31	792	-1.8	59	31	796	5.3	61	
2,500	30	751	4.7	55	31	746	-2.2	52	31	757	13.7	26	31	758	10.8	64	31	752	5.0	39	31	744	-4.0	56	31	749	1.1	66	
3,000	30	706	2.0	56	31	700	-4.7	53	31	712	10.5	29	31	713	8.3	56	31	707	1.7	41	31	697	-7.1	54	31	703	-2.6	68	
4,000	30	623	-3.9	51	29	616	-10.1	52	31	631	3.5	30	31	632	3.3	48	31	624	-4.6	40	31	613	-12.1	50	31	619	-8.6	64	
5,000	30	548	-10.6	47	29	541	-16.0	45	31	557	-4.0	30	28	558	-1.9	37	31	549	-11.5	44	31	537	-17.9	48	31	543	-15.0	54	
6,000	30	480	-17.3	35	29	473	-22.5	30	30	490	-10.9	27	27	491	-8.0	39	30	481	-18.1	31	31	470	-24.3	31	31	475	-22.0	58	
7,000	30	420	-24.7	29	29	412	-29.8	25	30	430	-17.7	27	27	432	-14.7	46	30	420	-25.1	25	31	408	-31.3	28	31	414	-29.7	59	
8,000	29	365	-31.8	29	29	357	-37.2	20	30	375	-25.1	25	25	377	-21.5	46	30	365	-32.6	20	31	354	-38.5	31	31	359	-37.1	60	
9,000	28	316	-39.3	29	29	308	-44.0	15	30	326	-32.7	24	24	329	-29.0	46	30	316	-40.1	15	31	305	-45.4	28	31	310	-44.9	61	
10,000	28	273	-46.3	29	29	265	-50.2	10	29	282	-40.4	24	24	285	-36.7	46	28	273	-47.3	10	31	262	-50.9	28	28	266	-51.4	62	
11,000	26	234	-52.7	29	227	-54.5	20	20	243	-48.0	24	24	246	-44.6	46	27	234	-53.6	20	29	225	-53.5	27	228	-54.3	63	64		
12,000	24	200	-58.0	27	194	-56.8	29	29	208	-54.7	24	24	212	-52.2	46	25	200	-58.2	28	28	192	-62.9	22	195	-65.5	65	66		
13,000	17	171	-60.2	25	166	-55.8	27	27	177	-60.0	23	23	181	-59.8	46	25	170	-59.4	24	24	164	-62.4	20	166	-65.4	67	68		
14,000	13	145	-59.2	21	141	-55.1	20	20	152	-63.5	18	18	153	-66.4	46	23	145	-59.3	20	20	140	-62.4	13	141	-62.9	69	70		
15,000	12	124	-60.6	19	121	-55.6	12	12	129	-65.6	15	15	130	-71.7	46	20	123	-60.0	16	16	120	-62.3	11	121	-63.5	71	72		
16,000	5	105	-59.8	14	103	-57.2	7	7	110	-68.5	7	7	109	-74.4	46	17	105	-61.5	8	8	103	-63.3	9	104	-63.9	73	74		
17,000				11	88	-57.5										12	90	-62.0					5	89	-63.8	75	76		
18,000				8	75	-57.6										6	76	-61.3									77	78	
19,000																5	65	-62.2										79	80

Altitude (meters) m. s. l.	Swan Island, W. I. ¹ (10 m.)				Tacubaya, Mexico (2,306 m.)				Tampa, Fla. (3 m.)				Tatoosh Island, Wash. (31 m.)				Toledo, Ohio (191 m.)				Washington, D. C. (25 m.)							
Surface					31	774	17.1	54	31	1,016	22.8	73	31	1,011	10.6	88	28	989	10.8	78	31	1,014	15.9	68				
500									31	960	20.5	64	31	956	9.3	77	28	953	10.8	70	31	955	14.0	59				
1,000									31	906	17.9	56	31	900	8.3	66	28	898	8.9	68	31	900	10.7	60				
1,500									31	854	14.9	53	31	846	6.2	61	28	845	6.0	70	31	847	7.6	61				
2,000									31	805	11.9	51	31	796	3.2	57	28	794	3.0	70	31	797	4.3	60				
2,500					31	757	15.8	53	31	756	9.1	45	31	749	0.4	50	28	747	0.3	64	31	749	1.3	55				
3,000					31	713	12.1	55	31	713	6.3	38	31	703	-2.7	46	28	701	-2.1	60	31	704	-1.4	54				
4,000					31	632	4.5	63	31	631	0.6	34	31	619	-8.8	46	27	618	-7.8	52	31	620	-6.7	45				
5,000					31	558	-2.6	68	31	556	-5.8	34	31	543	-15.3	44	25	542	-14.4	50	31	545	-13.1	46				
6,000					30	492	-9.0	67	31	488	-12.1	31	31	474	-22.3	31	25	474	-21.1	31	31	477	-19.8	43				
7,000					28	432	-14.3	30	30	428	-19.2	31	31	414	-30.1	25	25	414	-28.3	29	29	416	-26.3	42				
8,000					27	377	-21.5	29	30	373	-26.6	29	30	359	-37.5	24	24	358	-35.8	28	28	362	-33.3	41				
9,000					27	329	-28.8	29	29	324	-34.8	29	30	309	-44.6	22	22	310	-42.7	25	25	314	-40.1	40				
10,000					26	286	-36.4	29	29	280	-42.2	28	28	266	-50.4	20	20	268	-48.2	24	24	271	-47.0	39				
11,000					25	246	-44.3	28	28	241	-50.1	28	28	228	-53.8	19	19	230	-52.8	24	233	-53.2	38					
12,000					18	212	-51.7	26	26	207	-56.5	25	25	195	-55.9	16	16	197	-55.0	24	199	-57.5	37					
13,000					7	182	-58.6	25	25	176	-61.0	26	26	166	-55.4	15	15	168	-55.4	20	169	-56.1	36					
14,000								25	150	-63.3	23	23	142	-55.4	14	14	144	-55.6	17	144	-56.9	35						
15,000								11	127	-65.3	20	20	121	-54.9	12	12	123	-56.4	16	123	-58.7	34						
16,000					6	108	-68.9	15	15	108	-68.9	15	15	103	-55.6	9	9	105	-56.0	11	104	-56.2	33					
17,000					5	91	-70.0	9	9	91	-70.0	9	9	88	-55.0	6	6	90	-56.5								32	
18,000														5	75	-54.3												36

¹ Data not received.

NOTE.—All observations scheduled between 10 p. m. and midnight, E. S. T. (0300 and 0500 G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m., E. S. T. (0200 G. C. T.).

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations.) Relative humidity data are not published for levels having a corresponding mean temperature below -20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," page 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Data for Havana, Cuba, and Swan Island, West Indies, will appear in a later issue.

TABLE 2.—Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during May 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Browns- ville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burling- ton, Vt. (132 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (152 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,196 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity			
Surface.....	31	150	4.3	31	248	4.9	30	257	3.6	28	25	1.3	31	1	2.3	31	313	3.0	31	131	6.6	24	242	6.5	27	268	1.1	31	206	1.8	31	259	1.9	31	29	2.2	31	250	6.9
500.....	31	150	4.3	31	248	4.9	30	257	3.6	28	25	1.3	31	1	2.3	31	313	3.0	31	131	6.6	24	242	6.5	27	268	1.1	31	206	1.8	31	259	1.9	31	29	2.2	31	250	6.9
1,000.....	31	168	5.4	31	248	4.9	30	264	4.2	28	25	1.3	31	300	2.1	31	314	3.4	27	162	5.3	22	255	7.5	27	233	4.4	30	247	4.4	27	263	4.3	31	249	3.6	31	249	6.9
1,500.....	31	197	5.4	31	248	4.9	30	270	4.9	28	25	1.3	31	304	2.2	31	304	3.5	18	162	4.5	20	261	8.0	23	258	5.9	30	270	5.6	24	263	4.3	31	249	3.6	31	249	6.9
2,000.....	30	220	6.3	31	244	5.1	27	280	6.4	27	358	1.2	24	315	2.7	31	282	4.2	18	173	4.5	17	276	9.2	19	256	7.0	26	288	6.8	19	264	9.4	31	35	1.0	31	248	7.2
2,500.....	30	241	7.5	31	241	5.2	21	280	7.7	25	285	2.2	21	297	3.4	30	262	3.8	16	150	4.6	13	286	11.1	12	262	6.3	25	298	8.7	16	260	10.5	29	132	0.8	31	246	7.3
3,000.....	29	247	9.3	31	244	6.0	18	285	7.4	24	278	6.0	21	279	5.2	26	262	4.2	16	164	3.2	11	289	14.8	10	262	6.3	20	299	9.6	11	279	10.6	27	241	0.8	31	249	8.6
4,000.....	27	265	9.7	30	257	8.8	16	299	10.7	16	276	8.2	11	296	9.0	23	256	5.6	12	309	1.6	10	289	14.8	10	262	6.3	20	303	10.0	10	260	10.5	29	132	0.8	31	246	7.3
5,000.....	21	274	13.1	27	249	12.7	16	299	10.7	12	277	11.3	11	296	9.0	21	257	5.5	12	294	4.3	10	289	14.8	10	262	6.3	20	303	10.0	10	260	10.5	29	132	0.8	31	246	7.3
6,000.....	17	279	14.8	23	252	16.2	16	299	10.7	11	282	11.5	11	296	9.0	21	257	5.5	12	294	4.3	10	289	14.8	10	262	6.3	20	303	10.0	10	260	10.5	29	132	0.8	31	246	7.3
8,000.....	11	277	17.3	17	261	20.0	16	299	10.7	11	282	11.5	11	296	9.0	21	257	5.5	12	294	4.3	10	289	14.8	10	262	6.3	20	303	10.0	10	260	10.5	29	132	0.8	31	246	7.3
10,000.....	11	277	17.3	17	261	20.0	16	299	10.7	11	282	11.5	11	296	9.0	21	257	5.5	12	294	4.3	10	289	14.8	10	262	6.3	20	303	10.0	10	260	10.5	29	132	0.8	31	246	7.3

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jackson- ville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (410 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity			
Surface.....	31	221	2.5	31	221	1.5	30	244	3.1	29	321	1.3	31	128	1.2	29	275	1.7	31	222	3.8	28	214	2.0	29	305	1.7	31	136	3.8	31	225	2.5	31	232	2.1	28	212	2.6
500.....	31	221	2.5	31	221	1.5	30	244	3.1	29	321	1.3	31	128	1.2	29	275	1.7	31	222	3.8	28	214	2.0	29	305	1.7	31	136	3.8	31	225	2.5	31	232	2.1	28	212	2.6
1,000.....	31	221	2.5	31	221	1.5	30	244	3.1	29	321	1.3	31	128	1.2	29	275	1.7	31	222	3.8	28	214	2.0	29	305	1.7	31	136	3.8	31	225	2.5	31	232	2.1	28	212	2.6
1,500.....	31	221	2.5	31	221	1.5	30	244	3.1	29	321	1.3	31	128	1.2	29	275	1.7	31	222	3.8	28	214	2.0	29	305	1.7	31	136	3.8	31	225	2.5	31	232	2.1	28	212	2.6
2,000.....	31	225	2.9	31	238	3.5	23	279	8.4	26	290	2.0	31	273	6.1	20	266	8.5	31	195	5.4	21	249	8.8	28	249	3.5	28	322	2.7	25	292	5.0	20	277	7.1	21	276	10.8
2,500.....	31	229	3.9	31	231	5.0	22	288	10.1	21	307	2.4	28	281	7.5	17	287	8.6	31	202	5.0	21	255	9.7	25	241	3.3	27	336	3.4	23	290	5.5	18	276	9.7	17	288	12.0
3,000.....	31	219	3.5	29	232	5.5	20	291	11.2	16	302	3.9	27	289	8.2	12	308	12.7	30	216	5.2	20	266	10.1	23	238	2.7	27	346	2.8	20	291	5.7	17	283	10.6	13	302	14.3
4,000.....	29	230	4.7	24	236	7.6	16	300	13.8	11	286	5.8	20	298	9.0	10	308	12.7	28	238	6.0	14	284	11.0	16	238	2.2	20	315	2.4	13	310	5.6	14	273	11.6	10	290	14.8
5,000.....	19	227	4.4	15	255	9.6	10	295	18.8	10	295	18.8	10	295	18.8	10	295	18.8	26	245	9.3	13	284	11.9	13	205	2.0	15	306	4.0	10	290	14.8	10	290	14.8	10	290	14.8
6,000.....	14	233	6.2	10	271	11.9	10	295	18.8	10	295	18.8	10	295	18.8	10	295	18.8	21	260	10.4	11	302	14.1	12	177	0.9	14	301	5.5	10	290	14.8	10	290	14.8	10	290	14.8
8,000.....	11	230	9.1	10	271	11.9	10	295	18.8	10	295	18.8	10	295	18.8	10	295	18.8	21	260	10.4	11	302	14.1	12	177	0.9	14	301	5.5	10	290	14.8	10	290	14.8	10	290	14.8
10,000.....	11	230	9.1	10	271	11.9	10	295	18.8	10	295	18.8	10	295	18.8	10	295	18.8	21	260	10.4	11	302	14.1	12	177	0.9	14	301	5.5	10	290	14.8	10	290	14.8	10	290	14.8

Altitude (meters) m. s. l.	Oakland Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (225 m.)			San An- tonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (226 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washing- ton, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity			
Surface.....	31	259	6.5	29	181	2.5	28	20	1.0	31	254	1.8	30	22	2.6	27	242	7.6	29	327	1.4	31	166	2.4	29	268	4.1	30	314	4.1	30	266	2.1	30	264	1.6	29	243	2.1
500.....	31	268	6.5	29	184	3.1	28	51	0.6	31	248	2.9	30	22	2.6	27	251	2.2	29	332	2.5	31	167	3.5	29	275	3.7	30	317	4.3	30	263	1.8	29	248	4.2	29	248	4.2
1,000.....	27	270	4.5	29	195	4.1	28	99	0.5	31	240	3.6	30	22	2.6	26	234	4.5	25	326	3.3	31	165	3.4	22	272	1.8	27	319	4.3	29	229	2.4	30	241	2.5	27	255	5.6
1,500.....	23	279	4.7	28	219	5.3	23	296	1.4	31	226	3.7	30	347	0.8	24	248	6.3	22	322	3.7	30	198	3.1	20	275	2.9	24	324	4.3	26	216	1.7	30	240	2.6	27	268	8.3
2,000.....	22	265	3.9	27	239	7.1	20	285	4.3	31	220	4.4	25	218	1.2	17	200	9.2	21	324	4.0	29	220	4.5	20	267	3.7	20	279	5.1	20	244	0.9	27	243	2.6	27	275	9.7
2,500.....	22	269	4.2	26	254	9.1	19	287	6.3	31	221	5.2	23	239	3.8	15	261	10.9	17	332	5.8	28	234	4.3	20	267	4.0	15	342	5.0	17	302	1.8	15	250	2.5	25	282	11.0
3,000.....	20	268	5.6	26	255	10.6	14	287	9.9	31	233	7.1	22	268	6.5	15	264	11.2	14	324	6.4	26	241	5.4	19	268	4.7	15	321	5.7	16	303	1.9	15	283	2.8	23	287	11.1
4,000.....	20	268	7.3	23	264	13.8	10	301	10.3	31	240	10.4	14	266	10.3	15	264	11.2	14	324	6.4	26	241	5.4	18	253	8.7	12	313	10.6	16								

RIVER STAGES AND FLOODS

By C. R. JORDAN

Precipitation continued heavy during May in Central and Northeastern States and in the Northwest. Rainfall was generally below normal in the South Atlantic and Gulf Coastal Plains and from Montana southward over southwestern United States.

Excessive run-off that has persisted for several months continued in the four-State area of Iowa-Missouri-Nebraska-Kansas. Bankful stages were reached or exceeded several times during the month throughout this section. Floods also occurred in northern Indiana, southern Michigan, and Ohio. Run-off was below normal in the Southeastern States, particularly in Florida, and in western Texas and Oklahoma.

St. Lawrence Drainage.—Heavy rains fell over the southern Great Lakes drainage on May 14-16 and produced overflow in southern Michigan, northern Indiana, and Ohio. Maximum stages on many of the streams of Michigan were approached, but none were exceeded.

Atlantic Slope and East Gulf of Mexico Drainages.—Light overflow was reported at widely scattered points from Connecticut to Louisiana, but no general or serious overflow occurred. Water levels in the Everglades section of Florida were the lowest since observations were started in 1939, according to the United States Geological Survey. Subnormal stream flow has prevailed in many streams of the South Atlantic States for several months.

Mississippi System.—Heavy rains were frequent throughout the month over the central and northern Mississippi Valley, and flood stages were a constant threat in Iowa, Missouri, Nebraska, and Kansas. Rainfall was generally well distributed throughout the month, and unusually high stages were not reached, although the monthly discharge of many of the streams ranked high. Flood stages were exceeded at many stations one or more times during the month as shown by the table at the end of this report. (Some stations have been omitted from the table because the data have not been received from the district centers. These stations will be included in the report for June.) The United States Geological Survey report that record-breaking floods occurred in the Nishnabotna River Basin in southwestern Iowa. The stream reached a stage of 20.5 feet at Red Oak, Iowa, on May 22, as compared to the previous highest stage of record of 18.5 feet in 1937.

The following report of a flash flood in southern West Virginia was received from the Official in Charge, Chesapeake, Ohio:

A flash flood occurred in the vicinity of Caretta, McDowell County, W. Va., on May 29, which caused near \$30,000 damages as estimated by the editor of the Welsh Daily News, of Welsh, W. Va.

No lives were lost. The property damage included fences, highways, bridges, a short section of a railroad roadbed, business houses, homes, and other buildings; two coal mines were flooded.

The storm occurred during the passage of a cold front. No estimate of the amount of rainfall could be obtained. Sixteen hundredths of an inch were recorded at Gary, W. Va. (about 10 miles from Caretta), on the morning of the 29th, and none on the following day. The damaged area lies between two ridges which are somewhat higher than the flooded area.

The lower Mississippi River and tributaries were at high stages during the early part of May, but steadily falling stages generally prevailed throughout the month. Many stations were still above flood stage at the beginning of June.

West Gulf of Mexico Drainage.—There was light to moderately severe overflow of the Sabine and Trinity Rivers in Texas and the Rio Grande in New Mexico as shown in the flood stage table.

FLOOD-STAGE REPORT FOR MAY 1945

[All dates in May unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
ST. LAWRENCE DRAINAGE					
Lake Michigan					
Red Cedar:	Feet			Feet	
Williamston, Mich.....	7	15	20	8.7	18
East Lansing, Mich.....	8	16	21	9.7	19
Grand: Lansing, Mich.....	11	18	20	11.6	19
Lake Huron					
Shiawassee: Owosso, Mich.....	7	17	20	8.1	18
Lake Erie					
St. Joseph: Montpelier, Ohio.....	10	16	22	14.3	18
Maumee:					
Fort Wayne, Ind.....	15	16	22	17.4	17
Defiance, Ohio.....	10	18	20	11.6	19
Napoleon, Ohio.....	10	18	19	10.5	19
ATLANTIC SLOPE DRAINAGE					
Connecticut: Hartford, Conn.....	16	19	22	17.6	21
Chenango: Sherburne, N. Y.....	8	18	18	8.2	18
Chemung: Chemung, N. Y.....	12	18	18	14.4	18
Little Juniata: Spruce Creek, Pa.....	7	18	18	7.9	18
Fishing Creek: Enfield, N. C.....	14	29	31	15.2	30
Tar: Rocky Mount, N. C.....	9	28	28	9.7	28
Ocmulgee:					
Abbeville, Ga.....	11	1	7	14.0	3-4
Oconee: Mount Vernon, Ga.....	16	3	6	17.0	5
Altamaha:					
Charlotte, Ga.....	12	3	12	16.3	8
Piney Bluff, Ga.....	17	6	9	17.6	8
EAST GULF OF MEXICO DRAINAGE					
Apalachicola: Blountstown, Fla.....	15	{ Apr. 27 15	9 20	19.7 17.0	1-2 17
Alabama: Millers Ferry, Ala.....	40	Apr. 27		42.4	Apr. 29
Tombigbee:					
Lock No. 3.....	33	{ Apr. 29 15	5 17	41.9 34.2	1 16
Lock No. 1.....	31	Apr. 30	5	33.0	2
Chickasawhay: Enterprise, Miss.....	20	Apr. 29	1	21.1	Apr. 30
Pearl: Pearl River, La.....	12	1	3	12.6	1
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Rock: Moline, Ill.....	10	16	24	10.7	19-20
Skunk: Augusta, Iowa.....	15	15	19	{ 16.4 16.7 15.4	16 18 15
Raccoon: Van Meter, Iowa.....	13	{ 15 22 28	15 26 28	{ 15.8 14.0 13.2	22 25 28
Des Moines:					
Tracy, Iowa.....	14	{ Apr. 28 15 25	Apr. 30 18 (¹)	14.4 16.7 17.6	Apr. 30 16 27
Eddyville, Iowa.....	15	{ Apr. 28 15 25	1 19 (¹)	15.7 18.7 18.6	Apr. 30 17 27
Ottumwa, Iowa.....	9	{ Apr. 30 15 25	Apr. 30 19 (¹)	9.0 13.0 12.1	Apr. 30 17 28
Mississippi:					
Keokuk, Iowa.....	12	15	20	14.5	17-18
Quincy, Ill.....	14	15	21	18.1	18
				19.9	Mar. 27
				17.4	Apr. 8
				16.9	Apr. 14
				16.2	Apr. 19
				16.3	Apr. 22
				15.6	Apr. 27
				13.9	9
				18.5	18
Hannibal, Mo.....	13	{ 15 28	23 (¹)	{ 18.7 16.0 15.4 14.6 12.6 12.7 17.7	{ Mar. 27 Apr. 15 Apr. 19 Apr. 28 8 10 19
Louisiana, Mo.....	12	{ 14 25 19	23 (¹) 24	{ 32.1 37.9	{ 22 Apr. 22
Cape Girardeau, Mo.....	32	Apr. 13	3	34.9	24
Missouri Basin					
Solomon: Beloit, Kans.....	18	22	24	23.5	23
Smoky Hill:					
Lindsborg, Kans.....	21	22	24	24.0	23
Enterprise, Kans.....	26	26	28	27.1	27

See footnotes at end of table.

FLOOD-STAGE REPORT FOR MAY 1945—Continued

[All dates in May unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Missouri Basin—Continued					
Republican:	Feet			Feet	
Guide Rock, Nebr.	9	13	14	10.0	14
Scandia, Kans.	10	14	14	10.9	14
Concordia, Kans.	8	14	14	9.7	14
Clay Center, Kans.	15	14	16	18.8	15
		21	24	20.8	22
Wakefield, Kans.	11	15	16	11.5	15
		21	23	13.8	22
		14	17	18.6	16
Little Blue: Hanover, Kans.	14	21	24	18.8	22
		27	30	19.7	28
Big Blue:					
Beatrice, Nebr.	16	21	21	16.5	21
		14	17	28.1	14-15
Blue Rapids, Kans.	20	21	24	32.8	22
		26	29	30.7	27
Kansas:					
Wamego, Kans.	16	16	17	17.0	16
		22	25	19.5	24
		27	29	18.0	28
		17	17	21.1	17
Topeka, Kans.	21	23	25	23.8	24-25
		29	29	21.3	29
LeCompton, Kans.	17	17	17	17.9	17
		24	25	19.3	25
		17	17	19.0	17
Lawrence, Kans.	18	24	25	19.8	25
		28	28	18.4	28
Ohio Basin					
Hocking: Athens, Ohio.	17	19	19	17.2	19
Olentangy: Delaware, Ohio.	9	18	18	9.5	18
Scioto:					
LaRue, Ohio.	11	17	19	12.0	18
Prospect, Ohio.	10	19	20	11.0	19
Circleville, Ohio.	14	18	20	16.6	19
Chillicothe, Ohio.	16	20	20	16.2	20
Piketon, Ohio.	16	18	21	17.9	19
West Fork:					
Elliston, Ind.	18	17	22	22.3	20
Edwardsport, Ind.	12	Apr. 28	1	14.6	Apr. 29
		16	25	19.1	22
White:					
Petersburg, Ind.	16	20	24	17.3	23
Hazleton, Ind.	16	19	25	17.8	24
Wabash:					
Wabash, Ind.	12	16	19	16.1	17
LaFayette, Ind.	11	16	22	19.4	18
Covington, Ind.	16	17	23	22.8	19
Terre Haute, Ind.	14	16	25	18.3	20
Vincennes, Ind.	14	21	28	17.0	24
Mount Carmel, Ill.	17	21	27	19.3	25
Ohio:					
Shawneetown, Ill.	33	25	26	33.0	25-26
Dam No. 53, near Mound City, Ill.	42	Feb. 23	5	43.4	25-26
				53.9	Mar. 11
				53.8	Mar. 21
				53.7	Apr. 4
				46.5	Apr. 17
				44.2	26
Cairo, Ill.	40				
		21	(?)		
				20.0	Feb. 23
				25.3	Feb. 28
				23.9	Mar. 4
				24.9	Mar. 7-8
				22.0	Mar. 16
				-17	
				24.9	Mar. 20
				22.3	Mar. 26
				-27	
Black: Black Rock, Ark.	14	Feb. 21	27	27.1	Apr. 1
				26.2	Apr. 3
				27.0	Apr. 16
				25.5	Apr. 20
				-21	
				18.1	8
				23.3	11
				21.0	17
White:					
Newport, Ark.	26	Mar. 19	1	31.6	Mar. 23
				33.4	Apr. 5
		17	23	35.9	Apr. 18
				27.3	Mar. 20
				36.4	Mar. 25
				36.3	Mar. 25
				39.2	Apr. 5
				35.0	Apr. 13
Augusta, Ark.	32	Feb. 25	8	41.0	Apr. 19
		13	27	33.0	Apr. 22
				29.8	Mar. 9
				-10	
				29.1	Mar. 26
				-27	
Georgetown, Ark.	21	Feb. 24	(?)	32.0	Apr. 4
				28.7	Apr. 20
				23.1	22-23

See footnotes at end of table.

FLOOD-STAGE REPORT FOR MAY 1945—Continued

[All dates in May unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
White Basin—Continued					
White—Continued.	Feet			Feet	
				34.5	Mar. 10
				33.3	Mar. 27
Des Arc, Ark.	24	Feb. 26	10	36.2	Apr. 4
				30.2	Apr. 4
			16	24.9	20-21
				33.4	Mar. 14
				38.2	Apr. 16
Clarendon, Ark.	26	Feb. 27	(?)	39.1	Apr. 9
				29.4	Apr. 24
				38.6	Apr. 11
St. Charles, Ark.	25	Mar. 2	(?)	39.2	Apr. 11
				27.2	26-29
Arkansas Basin					
Petit Jean: Danville, Ark.	20	14	20	27.4	17
Arkansas:					
Van Buren, Ark.	22	Apr. 14	2	38.1	Apr. 16
				27.1	Apr. 26
				26.6	Apr. 30
Dardanelle, Ark.	22	Apr. 15	1	33.5	Apr. 19
		16	18	22.2	17
Red Basin					
Saline: Benton, Ark.	20	16	16	24.0	16
Ouachita:					
Arkadelphia, Ark.	17	10	10	17.3	10
Camden, Ark.	26	16	19	24.2	16
Monroe, La.	40	Mar. 10	25	34.8	21
Black: Jonesville, La.	50	Mar. 18	(?)	50.4	Apr. 15
				58.5	Apr. 28
Little: Whitecliffs, Ark.	25	17	24	26.5	19-20
Sulphur: Naples, Tex.	22	20	21	22.8	21
Red: Alexandria, La.	32	Mar. 2	7	40.0	Mar. 20
				39.7	Mar. 25
				45.2	Apr. 17
				15.8	Mar. 10
Lower Mississippi Basin					
Big Lake Outlet: Manila, Ark.	10	Feb. 23	(?)	17.5	Apr. 5-6
				16.7	Apr. 20
				15.2	14-15
St. Francis:					
Fisk, Mo.	20	Mar. 24	(?)	23.7	Apr. 7-8
				24.6	Apr. 17
				23.5	2-3, 10
				20.2	Mar. 23
				20.3	Mar. 26
St. Francis, Ark.	18	Mar. 19	(?)	21.9	Apr. 8
				23.4	Apr. 20
				21.5	3-5
				22.8	10
				30.7	Apr. 9
Parkin, Ark.	28	Apr. 1	6	29.5	Apr. 28
				34.7	Apr. 9
Madison, Ark.	32	Mar. 31	5	34.8	Apr. 13
				33.2	Apr. 28
				35.0	Mar. 26
Yazoo: Yazoo City, Miss.	29	Mar. 5	28	35.8	Apr. 5
				34.9	Apr. 29
				32.6	30
Mississippi:					16
New Madrid, Mo.	34	25	29	34.8	Apr. 27
				46.3	Apr. 5
Arkansas City, Ark.	42	Mar. 22	5	45.5	Apr. 25
				45.2	Apr. 27
Greenville, Miss.	39	Mar. 18	8	44.8	Apr. 6
				47.1	Apr. 10
Vicksburg, Miss.	43	Mar. 26	11	47.2	Apr. 12
				47.5	Apr. 14
				54.7	Apr. 29
				54.6	Apr. 11
Natchez, Miss.	48	Mar. 21	17	55.5	12-14
				55.5	Apr. 18
Red River Landing, La.	45	Mar. 15	(?)	56.4	Apr. 19
				45.2	Apr. 30
				45.6	Apr. 13
Baton Rouge, La.	35	Mar. 14	(?)	45.7	Apr. 27
				45.7	Apr. 29
					30

See footnotes at end of table.

FLOOD-STAGE REPORT FOR MAY 1945—Continued

[All dates in May unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM—continued					
Lower Mississippi Basin—Continued					
Mississippi—Continued. Donaldsonville, La.....	<i>Feet</i> 28	Mar. 15	31	<i>Feet</i> 35.3 24.9 25.0 25.8	Apr. 29 Mar. 26 Mar. 30 Apr. 12, 15, 17
Reserve, La.....	22	Mar. 16	28	25.9 19.1 19.2	Apr. 28 -May 2 Mar. 26 Mar. 29
New Orleans, La. ⁴	17	Mar. 16	28	-30. 19.6 19.7 19.8 19.0	Apr. 1 Apr. 12 Apr. 17 1 18
Atchafalaya Basin					
Atchafalaya: Simmesport, La.....	41	Mar. 20	30	51.4 45.5 45.6 45.7	Apr. 30 Apr. 20 Apr. 22 Apr. 25
Melville, La.....	37	Mar. 16	(¹)	45.7 28.4 27.7 7.2	-May 1 6-8 19 Apr. 16
Atchafalaya, La.....	25	Mar. 8	(¹)	8.0	-17 Apr. 28, May 11
Morgan City, La.....	6	Apr. 6	(¹)	-12 7.7 8.1 7.3	2 16 25

FLOOD-STAGE REPORT FOR MAY 1945—Continued

[All dates in May unless otherwise specified]

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
WEST GULF OF MEXICO DRAINAGE					
	<i>Feet</i>			<i>Feet</i>	
Sabine: Bon Wier, Tex.....	17	Mar. 15	3	19.8 22.0 23.1	Mar. 27 Mar. 28 Apr. 5 Apr. 17 -18
East Fork: Rockwall (near), Tex.....	10	12	13	11.0	13
Trinity: Trinidad, Tex.....	28	Apr. 26	Apr. 30	29.8 24.6 27.8	Apr. 29 Feb. 26 Mar. 21 -23
		Feb. 23	5	27.9	Apr. 7
Liberty, Tex.....	24			28.8	Apr. 15 -16
		20	20	24.0	20
Rio Grande:					
Embudo, N. Mex.....	8	8	8	8.1	8
		13	14	8.1	14
		3	18	8.0	8
Espanola, N. Mex.....	7	21	23	8.1	13
		27	29	7.3	21
				7.9	26

¹ Provisional.² Continued into June.³ Levee broke at that stage.⁴ Stages after Mar. 23 affected by operation of Bonnet Carré Spillway.

CLIMATOLOGICAL DATA

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see Review, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and

lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature							Precipitation						
	Section average	Departure from the normal	Monthly extremes				Section average	Departure from the normal	Greatest monthly		Least monthly			
			Station	Highest	Date	Station			Lowest	Date	Station	Amount	Station	Amount
	° F.	° F.		° F.			° F.	In.	In.		In.		In.	
Alabama.....	69.5	-1.9	3 stations.....	100	31	Valley Head.....	31	1	3.29	-0.66	Childersburg.....	10.40	Lock No. 3.....	1.13
Arizona.....	65.6	-4	Maricopa.....	105	17	Chino.....	10	20	.02	-30	Inner Canyon.....	.30	89 stations.....	.00
Arkansas.....	66.2	-2.9	Morrilton.....	99	29	2 stations.....	32	5	5.23	+26	Benton.....	8.76	El Dorado.....	2.70
California.....	59.6	-1.8	Cow Creek.....	109	3	Ellery Lake.....	8	19	1.26	+31	Inskip.....	8.27	43 stations.....	.00
Colorado.....	53.2	+8	Eversoll Ranch.....	102	26	Dillon.....	12	3	1.52	-36	Ovid.....	4.31	Ignatio.....	.00
Florida.....	74.9	-6	2 stations.....	105	31	2 stations.....	40	6	1.93	-1.94	Pensacola.....	6.91	Cedar Key.....	T
Georgia.....	68.8	-2.8	do.....	102	31	3 stations.....	35	15	2.88	-50	Lumber City.....	5.65	Camp Stewart.....	.72
Idaho.....	53.2	+2	3 stations.....	91	13	4 stations.....	21	11	2.65	+97	McCall.....	5.63	Idaho Falls Airport.....	.74
Illinois.....	58.1	-4.7	Mount Vernon.....	93	31	Freeport.....	24	1	5.26	+1.15	Toulon.....	8.67	Elsah.....	2.18
Indiana.....	57.6	-4.7	New Harmony.....	91	31	2 stations.....	26	1	4.70	+64	LaPorte.....	10.47	Boonville.....	2.49
Iowa.....	55.1	-5.0	2 stations.....	89	20	Osage.....	21	9	6.17	+2.07	Emerson.....	9.41	Estherville.....	4.25
Kansas.....	61.6	-2.3	Cimarron.....	105	26	Atwood.....	23	16	3.50	-31	Greenleaf.....	12.96	Johnson.....	.18
Kentucky.....	61.6	-3.8	Russellville.....	93	31	Clermont.....	29	11	4.69	+0.75	Quicksand.....	6.87	Brownsville.....	2.87
Louisiana.....	71.7	-2.0	3 stations.....	95	29	4 stations.....	40	14	4.35	-27	Gueydan.....	9.39	Hackberry.....	1.40
Maryland-Delaware.....	60.2	-2.7	Cumberland, Md.....	95	21	2 stations.....	21	2	4.32	+82	Oxford.....	9.37	Great Falls, Md.....	2.53
Michigan.....	49.0	-5.2	4 stations.....	86	21	Kenton.....	13	15	5.28	+2.00	Paw Paw.....	8.34	Germfask.....	2.31
Minnesota.....	49.6	-5.6	New Ulm.....	85	6	Grand Rapids.....	17	11	2.66	-62	Albert Lea.....	8.50	Gonvick.....	.51
Mississippi.....	69.3	-2.5	3 stations.....	96	130	Edenburgh.....	37	6	2.96	-1.28	Forest.....	5.90	Enterprise.....	1.26
Missouri.....	60.5	-4.0	Sikeston.....	92	31	4 stations.....	31	15	5.50	+71	Maryville.....	9.24	Palmyra.....	1.79
Montana.....	50.1	-1.9	Crow Agency.....	89	4	Ophelm.....	3	8	1.94	-17	Drummond.....	3.37	Poplar.....	.14
Nebraska.....	56.0	-3.3	Culbertson.....	98	19	Harrison.....	17	3	3.74	+35	Auburn.....	9.23	Haigler.....	.91
Nevada.....	56.1	+3	Overton.....	103	12	Ruby Lake.....	15	21	1.14	+29	Lamoille.....	4.93	5 stations.....	.00
New England.....	52.2	-3.0	2 stations.....	87	22	2 stations.....	24	10	6.01	+2.64	Pinkham Notch, N. H.....	9.86	Slocum, R. I.....	3.30
New Jersey.....	58.4	-2.0	3 stations.....	90	22	Long Valley.....	29	12	4.78	+1.16	Charlotteburg.....	8.74	Barnegat City.....	1.66
New Mexico.....	61.0	+1.3	do.....	103	27	Birmingham Ranch.....	11	19	.27	-95	Tucumcari Airport.....	2.27	53 stations.....	.00
New York.....	52.6	-3.5	Little Falls No. 1.....	96	22	Allegheny State Park.....	21	2	5.38	+1.90	Rifton.....	9.37	Fredonia.....	1.76
North Carolina.....	64.2	-2.8	2 stations.....	96	29	Mount Mitchell.....	22	11	3.51	-48	Parker.....	7.84	2 stations.....	1.04
North Dakota.....	47.4	-5.8	Milnor.....	84	23	Center.....	10	10	1.54	-77	Halliday.....	4.40	Tuttle.....	.50
Ohio.....	56.1	-4.5	Philo No. 2.....	90	21	Millport.....	25	2	4.72	+1.00	Montpelier.....	6.96	Fernbank.....	2.88
Oklahoma.....	67.0	-1.3	Hollis.....	106	25	Hooker.....	27	4	2.37	-2.33	Poteau.....	9.64	Waynoka.....	.17
Oregon.....	53.4	+2	Vernonia.....	95	5	3 stations.....	22	16	3.75	+1.98	Valsetz.....	11.18	Hermiston.....	1.64
Pennsylvania.....	55.6	-4.1	2 stations.....	91	15	Kane.....	16	2	5.12	+1.20	Millersburg.....	8.49	Holtwood.....	2.65
South Carolina.....	68.0	-2.9	5 stations.....	100	31	Caesars Head.....	34	4	3.10	-37	Coward.....	6.95	Cherokee (near).....	1.05
South Dakota.....	52.0	-4.4	6 stations.....	88	24	Ralph.....	11	8	2.75	-11	Flandreau.....	7.20	Pollock.....	.53
Tennessee.....	63.6	-3.3	5 stations.....	93	31	Rugby.....	29	1	5.58	+1.48	Monterey.....	9.69	Memphis.....	2.36
Texas.....	72.8	-2	Presidio.....	110	27	Dalhart.....	31	16	1.64	-2.06	Broxison.....	7.78	6 stations.....	.00
Utah.....	56.2	+7	Hanksville.....	95	14	Soldier Summit.....	9	18	1.13	-06	Tony Grove R. S.....	5.25	Bluff.....	.00
Virginia.....	61.3	-3.0	Clarksville.....	92	15	3 stations.....	26	12	4.30	+61	Burkes Garden.....	7.62	Cheriton.....	1.89
Washington.....	56.4	+1.3	Trinidad.....	95	30	Republic.....	24	6	2.76	+90	Prindle.....	9.96	Port Townsend.....	.37
West Virginia.....	57.9	-3.9	2 stations.....	95	21	Canaan Valley.....	19	2	5.01	+1.02	Kumbrabow State Forest.....	8.28	Wardensville.....	2.58
Wisconsin.....	51.0	-4.3	Menomonie.....	83	6	2 station.....	17	11	4.40	+73	La Crosse Airport.....	8.01	Iron River.....	1.25
Wyoming.....	49.6	.0	Lovell.....	87	4	Northeast Entrance.....	9	3	1.83	-22	Grassy Lake Dam.....	4.92	Elk Mountain.....	.21
Alaska (April).....	25.9	-1.5	Wasilla.....	62	21	Allakaket.....	-33	3	1.06	-41	Little Port Walter.....	10.72	3 stations.....	T
April 1945.....														
North Carolina.....	62.9	+4.9	4 stations.....	92	14	2 stations.....	16	5	3.60	-30	Highlands.....	9.71	Wadeston.....	.50
Texas.....	64.4	-1.7	2 stations.....	102	15	do.....	11	4	3.47	+56	Port Arthur.....	12.59	3 stations.....	.00

¹ Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments			Pressure			Temperature of the air										Precipitation			Wind			Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms								
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal	Temperature from normal		Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more					Average hourly velocity	Prevailing direction	Maximum velocity					
							Miles per hour	Direction																										
NEW ENGLAND																																		
Eastport	75	67	85	1,009.1	1,012.2	-2.4	46.4	-1.3	67	27	53	31	2	40	25	582	39	80	8.18	+5.2	2.25	10	10.4	s.	46	e.	11	5	10	16	6.8	T	.0	0
Greenville, Maine	1,070	6	41	972.9	1,012.2	-2.7	46.3	-3.2	73	26	57	28	3	36	42	580	39	80	6.09	+2.9	1.50	18	10.4	s.	37	ne.	4	3	11	17	7.3	7.0	.0	0
Portland, Maine	103	5	43	1,008.1	1,012.2	-2.7	49.5	-3.8	77	29	58	30	12	41	28	480	42	80	6.77	+3.4	1.89	17	10.0	s.	37	ne.	11	2	9	20	8.0	8.0	.0	0
Concord	289	5	51	1,001.4	1,012.5	-2.7	52.0	-9.4	84	15	62	29	13	42	39	405	44	77	5.89	+2.9	1.80	22	8.6	nw.	31	s.	28	1	6	24	8.3	T	.0	0
Burlington	403	5	51	996.3	1,011.5	-3.4	52.2	-4.3	86	22	61	29	13	43	37	405	44	77	5.90	+3.0	1.06	20	9.0	nw.	40	nw.	11	4	13	14	7.2	T	.0	0
Boston	124	33	62	1,007.1	1,012.2	-3.0	55.2	-1.9	79	15	63	35	11	47	27	313	44	72	4.47	+1.3	1.15	16	12.4	nw.	34	ne.	19	12	8	11	5.6	.0	0	
Nantucket	12	11	59	1,011.9	1,012.5	-3.1	53.9	+1.6	69	29	61	37	3	47	21	345	48	83	3.44	+6.1	1.12	12	12.7	sw.	34	ne.	19	12	8	11	5.6	.0	0	
Block Island	26	11	46	1,010.8	1,012.2	-3.4	53.2	+4.4	71	26	59	40	11	47	20	369	47	84	4.39	+9.9	.97	13	18.4	sw.	48	nw.	11	12	8	15	7.0	.0	0	
Providence	189	46	60	1,006.4	1,012.9	-2.3	57.2	-1.3	79	26	66	38	11	48	32	250	44	73	4.25	+1.3	1.20	14	9.1	s.	34	nw.	11	5	10	16	6.3	.0	0	
Hartford	189	5	44	1,008.5	1,012.9	-2.7	55.6	-1.9	79	26	66	37	10	46	32	262	50	72	6.01	+2.4	1.28	17	8.9	s.	34	nw.	11	5	10	16	6.3	.0	0	
New Haven	107	5	39	1,008.5	1,012.9	-2.7	55.0	-4.4	77	29	64	38	11	46	32	313	46	75	5.41	+2.0	1.37	13	7.7	e.	28	nw.	11	10	5	16	6.3	.0	0	
MIDDLE ATLANTIC																																		
Albany	97	26	40	1,007.8	1,011.9	-3.3	53.4	-4.3	85	22	63	32	20	44	38	360	44	72	4.82	+2.2	1.20	18	10.2	s.	35	w.	30	3	9	19	7.3	5.4	.0	0
Binghamton	871	60	79	980.4	1,012.5	-2.7	54.5	-2.9	86	22	64	33	10	45	38	340	44	75	4.34	+1.0	1.30	16	6.8	w.	34	w.	30	1	10	20	7.8	.8	.0	0
New York	314	415	454	1,000.3	1,011.9	-3.7	58.9	-1.7	82	22	67	42	11	51	36	204	46	66	5.70	+2.5	1.80	13	15.6	s.	56	w.	22	9	11	11	5.7	.0	0	
Harrisburg	374	30	49	998.5	1,012.5	-2.7	59.7	-2.1	87	15	70	37	2	49	34	202	46	66	5.85	+1.8	1.53	14	9.3	w.	30	n.	19	6	12	13	6.4	.0	0	
Philadelphia	114	5	57	1,008.5	1,012.9	-2.7	60.2	-1.9	86	22	70	39	2	50	31	192	48	70	4.85	+6.9	.95	12	9.8	sw.	32	w.	22	6	13	12	6.1	.0	0	
Reading	323	47	306	1,000.3	1,012.5	-2.7	59.9	-2.0	86	15	70	38	2	50	31	197	48	70	4.79	+1.1	1.29	15	13.1	nw.	30	w.	22	6	13	12	6.1	.0	0	
Scranton	805	72	104	983.1	1,012.5	-2.7	56.4	-3.0	87	22	66	36	10	47	36	290	49	74	3.09	+0.1	1.08	15	7.8	sw.	26	nw.	11	9	9	13	5.9	.0	0	
Atlantic City	62	37	172	1,010.8	1,013.2	-2.0	58.6	+3.5	80	29	64	41	1	53	21	209	49	74	3.09	+0.1	1.08	12	16.9	s.	42	w.	10	8	9	14	6.1	.0	0	
Trenton	190	89	107	1,005.4	1,012.5	-3.0	60.2	-1.9	86	22	70	40	1	51	30	182	48	69	4.14	+1.1	1.44	15	10.0	s.	41	sw.	22	14	9	8	4.8	.0	0	
Baltimore	123	100	115	1,008.1	1,012.9	-2.7	63.2	-1.2	88	22	72	43	11	55	31	128	48	66	3.50	+0.1	1.20	11	11.3	s.	36	nw.	10	8	14	9	5.5	.0	0	
Washington	112	56	100	1,008.5	1,013.2	-2.7	62.8	-0.9	89	16	73	45	2	53	35	149	48	62	3.44	-3.8	.80	12	7.8	s.	46	nw.	11	11	12	8	5.0	.0	0	
Cape Henry	15	8	54	1,012.5	1,013.5	-1.4	64.9	+7.8	89	16	73	45	2	53	35	149	48	62	3.44	-3.8	.80	12	7.8	s.	46	nw.	11	11	12	8	5.0	.0	0	
Lynchburg	686	4	50	988.8	1,013.5	-2.4	62.1	-3.8	87	16	75	47	6	58	31	162	48	64	3.16	-8.1	.28	11	9.0	s.	36	sw.	22	8	13	10	5.6	.0	0	
Norfolk	91	80	125	1,010.5	1,014.2	-1.7	66.4	+4.2	88	16	75	47	6	58	31	162	48	64	3.16	-8.1	.28	11	9.0	s.	36	sw.	22	8	13	10	5.6	.0	0	
Richmond	144	11	52	1,007.5	1,012.9	-2.7	64.2	-2.3	87	15	75	46	2	53	34	113	52	69	5.35	+1.6	1.85	11	8.2	sw.	27	nw.	10	12	10	9	5.2	.0	0	
SOUTH ATLANTIC																																		
Asheville	2,253	77	92	936.0	1,014.6	-1.0	60.5	-2.1	87	29	72	37	4	40	39	188	47	68	2.87	-6.9	.95	10	8.8	nw.	26	s.	16	7	12	12	6.0	.0	0	
Charlotte	779	63	86	986.5	1,014.6	-1.0	66.6	-2.3	93	29	77	41	5	56	29	90	52	66	1.40	-2.2	.51	8	7.3	sw.	22	sw.	16	8	14	9	5.4	.0	0	
Greensboro	886	6	56	982.7	1,014.9	-1.0	63.4	-3.0	89	29	75	36	5	52	37	134	52	72	5.11	+1.1	1.74	14	8.3	sw.	30	w.	5	7	14	10	6.0	.0	0	
Hatteras	11	5	50	1,014.2	1,014.6	-1.7	67.4	-1.3	81	17	73	48	12	62	23	48	58	74	1.79	-1.9	.89	11	13.8	sw.	38	w.	18	13	10	8	4.8	.0	0	
Raleigh	376	5	60	1,000.7	1,014.6	-1.0	65.8	-2.7	92	29	76	40	5	55	30	98	54	72	3.47	-3.1	1.21	12	7.6	sw.	24	sw.	10	12	12	7	4.7	.0	0	
Wilmington	72	73	107	1,012.5	1,014.9	-1.4	68.6	-2.2	89	29	77	47	5	60	25	40	58	74	1.84	-1.6	.61	13	10.0	sw.	31	sw.	3	14	11	6	4.5	.0	0	
Charleston	48	11	92	1,013.2	1,015.2	-1.1	71.4	-1.3	90	31	80	52	4	64	22	11	59	76	2.32	-7.1	1.34	7	10.5	s.	24	s.	11	17	4	10	4.2	.0	0	
Columbia, S. C.	347	70	91	1,002.4	1,014.9	-1.0	69.1	-2.8	94	31	80	43	5	59	29	59	56	66	2.61	-5.5	.97	8	8.5	s.	29	w.	16	15	8	8	4.5	.0	0	
Greenville, S. C.	1,040	18	36	977.3	1,014.6	-1.0	66.3	-0.9	92	31	77	41	4	56	30	90	52	66	2.66	-1.4	1.35	6	8.9	sw.	27	sw.	16	11	12	8	5.2	.0	0	
Augusta	182	62	77	1,008.1	1,014.9	-1.7	70.4	-2.0	96	31	82	47	5	59	29	36	53	62	1.97	-1.1	.75	6	6.4	nw.	30	nw.	22	13	9	9	4.9	.0	0	
Savannah	6	73	152	1,012.9	1,015.6	-1.3	72.2	+5.1	101	31	84	48	5	61	32	15	60	74	2.06	-1.0	1.49	7	11.4	sw.	37	nw.	3	18	8	5	3.8	.0	0	
Jacksonville	43	86	110	1,014.6	1,016.3	+4.4	74.8	-2.2	98	31	85	52	5	65	26	4	60	68	3.26	-8.2	2.58	5	8.7	sw.	26	sw.	3	16	11	4	3.9	.0	0	
FLORIDA PENINSULA																																		
Key West	21	10	64	1,014.9	1,015.9	+1.0	79.8	+7.7	87	25	85	67	7	75	15	0	68	73	.04	-3.5	.02	3	9.5	e.	25	se.	16	23	6	2	2.6	.0	0	
Miami	25	242	249	1,014.9	1,015.9	+1.3	75.8	-1.4	87	19	81	68	6	71	23	0	64	72	.82	-6.3	.53	5	13.0	s.	28	s.	3	21	9	1	3.2	.0	0	
Tampa	35	6	43	1,014.9	1,016.3	+7.7	77.0	+7.7	96	31	87	57	6	67	27	0	63	70	.42	-2.6	.21	3	9.1	w.	29	sw.	16	12	15	4	4.2	.0	0	
EAST GULF																																		
Atlanta	1,173	33	72	973.6	1,014.9	-7.6	66.4	-3.7	94	31	78	43	4	56	28	88	53	67	3.92	+5.1	1.40	11	10.9	nw.	35	nw.	5	11	10	10	5.3	.0	0	
Macon	370	79	87	1,001.7	1,01,																													

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments			Pressure		Temperature of the air										Precipitation		Wind				Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal		Departure from normal		Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Total	Precipitation					Prevailing direction	Maximum velocity																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Departure from normal	Mean	Departure from normal	Maximum												Departure from normal						Mean	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Average hourly velocity	Miles per hour	Direction																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
OHIO VALLEY AND TENNESSEE—CON.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Lexington	989	4	28	978.0	1,013.9	-1.7	60.2	-4.1	84	21	70	35	11	50	31	198	50	75	4.76	+1.0	1.26	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS

District and station	Elevation of instruments			Pressure		Temperature of the air										Total degree days	Mean temperature of the dew point	Precipitation				Wind				Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms						
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal	Mean					Maximum						Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Average hourly velocity	Prevailing direction	Maximum velocity					Date	Clear days	Partly cloudy days	Cloudy days	Average cloudiness, tenths	
							Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range									Miles per hour	Direction									
MIDDLE SLOPE																																		
Denver ¹	5,292	106	113	835.1	1,009.8	-7.57	57.2	+1.0	84	26	69	33	15	46	36	254	37	58	2.06	-2.90	11	7.2	s.	28	ne.	13	8	17	6	5.0	T	.0	6	
Pueblo ¹	4,690	5	36	853.7	1,009.8	-4.60	60.0	+1.1	93	26	75	33	3	45	47	178	36	54	.91	-7.41	8	9.4	se.	45	w.	31	8	13	10	5.6	T	.0	7	
Concordia ¹	1,392	50	58	963.1	1,012.5	-4.59	61.8	-3.8	86	13	70	36	4	49	30	234	48	70	7.33	+3.33	16	8.8	s.	29	nw.	21	8	12	14	6.4	.0	14		
Dodge City ¹	2,509	5	58	923.8	1,010.5	-1.06	61.8	-1.7	99	26	76	32	3	48	39	191	47	65	1.56	-1.3	87	7	16.3	s.	43	nw.	21	8	12	11	5.8	.0	8	
Wichita ¹	1,358	6	64	923.8	1,011.5	-1.06	62.2	-2.9	91	27	73	37	17	52	32	191	51	70	1.28	-3.2	64	8	16.8	s.	40	n.	16	9	11	11	5.7	.0	9	
Oklahoma City ¹	1,214	10	47	968.5	1,010.8	-1.46	67.2	-5	91	26	78	40	17	56	34	97	54	70	2.59	-2.3	62	7	10.8	s.	22	s.	20	11	13	7	5.2	.0	6	
Tulsa ¹	674	10	60	988.2	1,011.9	-65.8	-1.4	90	30	76	40	17	55	37	120	54	70	1.33	-3.7	76	9	13.1	s.	40	w.	21	9	12	10	5.6	.0	11		
SOUTHERN SLOPE																																		
Abilene ¹	1,738	4	59	950.2	1,009.5	-2.0	73.0	+2.4	99	13	86	39	4	60	34	37	54	61	2.45	-1.5	1.22	6	16.6	s.	45	se.	24	12	13	6	4.5	.0	8	
Amarillo ¹	3,676	5	42	886.2	1,009.5	-1.0	66.0	+3.9	99	27	82	35	16	50	44	116	43	56	.42	-2.4	.28	3	16.1	sw.	50	se.	6	10	13	8	5.1	.0	4	
Del Rio ¹	960	63	71	977.0	1,009.1	-1.7	78.7	+1.7	100	7	91	55	16	67	32	0	58	56	.96	-1.9	.95	2	11.4	se.	35	se.	1	14	10	7	4.5	.0	6	
Roswell ¹	3,566	75	85	889.3	1,008.5	-1.3	71.1	+1.7	99	27	87	43	16	55	46	26	34	33	.02	-1.1	.02	1	10.0	s.	38	ne.	2	19	7	5	3.8	.0	0	
SOUTHERN PLATEAU																																		
El Paso ¹	3,778	39	85	883.5	1,007.8	-7.73	73.2	+3.2	95	27	86	48	22	60	40	1	38	30	T	-3	T	0	12.9	w.	42	w.	20	19	9	3	3.3	.0	0	
Albuquerque ¹	5,314	5	45	835.1	1,006.8	-66.2	+2.9	90	28	81	42	16	52	40	41	28	28	T	-6	T	0	11.0	w.	42	nw.	20	13	13	5	4.5	.0	0		
Flagstaff ¹	6,907	36	51	789.7	1,012.9	+4.61	61.9	+1.2	77	4	68	23	20	35	41	404	21	35	T	-9	T	0	7.3	sw.	25	sw.	13	19	10	2	3.5	.0	0	
Phoenix ¹	1,107	39	87	970.9	1,008.8	+3.76	60.0	+1.0	98	17	91	53	21	61	39	0	32	25	.00	-1	.00	0	7.3	e.	25	sw.	13	19	10	2	3.5	.0	0	
Tucson ¹	2,555	5	39	923.1	1,008.8	-73.6	+4	96	17	89	49	21	58	38	1	28	20	.00	-2	.00	0	6.4	sw.	26	w.	29	28	1	2	1.9	.0	0		
Yuma ¹	142	9	54	1,004.4	1,008.5	-3	77.0	+8	101	16	04	54	21	60	41	0	38	32	.00	0	.00	0	6.4	w.	26	w.	29	28	1	2	1.9	.0	0	
MIDDLE PLATEAU																																		
Reno ¹	4,827	20	52	800.5	1,012.9	-0.53	63.4	+5	87	2	70	26	18	37	48	359	34	56	.24	-4	.11	7	9.7	w.	42	s.	16	3	16	12	6.5	T	.0	6
Tonopah ¹	6,090	9	20	811.4	1,009.5	-54.8	+5	81	2	68	30	19	42	32	320	29	42	.40	0	.18	6	8.1	nw.	32	w.	12	3	11	17	6.8	.0	7		
Winnemucca ¹	4,339	5	56	894.9	1,011.5	-1.4	55.4	+1.5	85	2	69	30	19	42	42	299	35	53	1.04	+2	.64	16	8.1	sw.	32	w.	12	3	11	17	6.8	.0	7	
Modena ¹	5,473	10	46	830.3	1,008.8	-1.0	64.1	+6	80	1	72	26	21	37	44	340	34	56	.05	-7	.02	4	10.7	sw.	38	sw.	13	5	14	12	6.2	T	.0	7
Salt Lake City ¹	4,227	32	58	863.9	1,009.8	-1.4	58.6	+2.9	82	3	72	38	15	46	40	202	38	54	.90	-9	.30	8	10.2	se.	38	w.	13	5	14	12	6.2	T	.0	7
Grand Junction ¹	4,602	60	68	855.7	1,008.8	-1.4	63.6	+2.5	85	26	76	42	16	51	33	86	30	36	.45	-4	.23	6	7.4	se.	31	s.	30	7	9	15	6.0	T	.0	5
NORTHERN PLATEAU																																		
Baker ¹	3,471	36	54	893.3	1,013.2	-1.4	52.4	+7	82	3	65	32	17	40	42	391	38	68	2.09	+5	.64	17	5.9	n.	23	sw.	22	6	12	13	6.4	.0	3	
Boise ¹	2,739	5	49	916.7	1,011.9	-2.0	56.6	+5	84	3	69	36	18	44	38	265	40	60	0.21	+8	.61	13	9.0	nw.	29	e.	16	5	12	14	6.6	T	.0	6
Pocatello ¹	4,478	5	31	860.1	1,011.9	-3.55	60.0	+2.0	82	4	66	35	16	42	45	311	39	56	2.14	+4	.72	13	10.5	sw.	34	sw.	21	8	11	13	6.8	.0	8	
Spokane ¹	1,929	27	42	944.1	1,012.5	-2.1	56.9	+1.4	83	30	69	38	22	44	39	250	40	62	2.20	+8	.77	15	7.2	ne.	24	w.	3	6	12	13	6.1	.0	5	
Walla Walla ¹	991	67	65	977.3	1,012.5	-1.7	61.4	+1.8	86	30	72	45	22	51	32	138	40	62	2.31	+7	.68	14	5.1	se.	17	sw.	31	10	12	9	5.3	.0	2	
Yakima ¹	1,076	58	67	973.9	1,012.5	-61.8	+2.8	89	30	74	39	17	50	36	144	40	62	.94	+3	.30	9	6.8	nw.	21	sw.	9	6	14	11	6.0	.0	2		
NORTH PACIFIC COAST																																		
North Head ¹	211	5	55	1,008.1	1,015.2	-1.7	53.0	+2.1	68	1	57	46	1	49	22	376	49	87	4.62	+1.7	1.02	13	13.6	n.	47	s.	10	2	5	24	8.2	.0	0	
Seattle ¹	125	90	321	1,010.2	1,014.6	-1.7	58.8	+2.2	88	2	67	48	11	50	36	203	46	70	2.71	+8	.88	11	8.8	s.	35	sw.	13	6	11	14	6.1	.0	3	
Tacoma ¹	194	172	201	1,008.1	1,014.6	-2.0	57.4	+3.3	85	2	65	46	7	50	33	244	46	70	3.86	+1.7	1.11	11	8.3	n.	27	s.	10	8	10	13	6.1	T	.0	2
Tatoosh Island ¹	86	9	61	1,011.9	1,014.6	-1.7	52.1	+2.5	66	6	56	44	5	48	20	398	47	86	4.11	+1	1.21	9	12.2	w.	42	e.	2	2	7	22	8.0	.0	0	
Medford ¹	1,329	29	58	967.2	1,013.9	-59.2	+1.0	91	1	72	41	11	47	43	197	45	67	4.58	+3.5	1.21	17	10.2	nw.	19	sw.	17	6	3	21	7.1	.0	5		
Portland, Ore. ²	154	68	106	1,009.5	1,014.9	-2.0	60.0	+3.1	89	2	68	47	9	52	31	180	49	74	4.46	+2.3	1.15	15	6.4	nw.	19	sw.	13	7	6	18	6.6	.0	0	
Roseburg ¹	510	45	76	997.0	1,015.2	-1.7	58.6	+2.6	86	1	68	44	23	49	39	204	48	72	2.65	+7	.62	15	3.6	n.	20	sw.	13	7	6	18	6.6	.0	0	
MIDDLE PACIFIC COAST																																		
Eureka ¹	60	72	88	1,016.3	1,018.0	+4	53.3	+1.3	66	12	58	45	20	49	15	364	48	84	3.43	+1.2	1.15	14	7.6	n.	23	sw.	12	0	3	28	8.8	.0	0	
Red Bluff ¹	353	5	26	1,001.4	1,013.9	-44.6	+1.9	93	1	76	45	19	53	36	77	46	58	2.34	+1.2	1.11	10	8.3	se.	31	se.	16	6	10	15	6.3	.0	0		
Sacramento ¹	66	92	115	1,012.5	1,014.6	+7	61.8	-1.5	90	3	74	45	19	50	38	110	46	65	.85	-2	.31	6	8.3	s.	20	sw.	8	11	10	15	5.1	.0	1	
San Francisco ¹	155	112	132	1,011.5	1,016.9	+1.3	55.4	-1.4	65	12	60	47	2	61	12	297	50	84	.64	-2	.43	5	11.1	w.	20	w.	20	3	13	15	6.9	.0	0	
SOUTH PACIFIC COAST																																		
Fresno ¹	327	5	34	1,002.4	1,013.9	+7	66.8	-4	95	1	81	47	18	53	36	24	44	50	.04	-4	.04	1	9.3	nw.	26	nw.	16	12	11	8	4.7	.0	0	
Los Angeles ¹	338	223	250	1,003.7	1,014.9	+7	61.9	-3	87	15	71	49	19	53	32	110	49	68	T	-4	T	0	6.7	w.	35	w.	15	12	16	3	4.4	.0	0	
San Diego ¹	87	20	55	1,012.9	1,015.2	+1.0	62.6	+1.3	80	16	60	51	24	56	24	76	53	74	.04	-3	.03	2	7.2	w.	17	w.	13	8	11	12	5.8	.0	0	
PANAMA CANAL																																		
Balboa Heights ¹	118	6	92	1,011.2	1,018.0	+1.4	81.0	+3	92	9	87	73	11	75	18	0	74	84	4.22	-3.7	1.13	15	5.7	n.	23	n.	31	0	20	11	6.8	.0	0	
Cristobal ¹	27	47	97	1,011.2	1,018.0	0	81.6	-3	90	24	87	74	28	76	15	0	74	81	8.15	-4.5	2.32	20	7.8	n.	23									

SEVERE LOCAL STORMS, MAY 1945

[Compiled by MARY O. SOUDER]

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the United States Meteorological Yearbook]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Madison County, Fla.	May 3				\$1,500	Electrical	Barn struck by lightning and burned.
Madison and Gadsden Counties, Fla.	3				5,000	Hail	Loss in tobacco crop.
Oneonta, N. Y., and vicinity.	10					Snow	Storm general throughout the State with from 1 to 7 inches record.
New England States	10-11			2	1,000,000	do.	Extensive damage to power and communication lines. Albany had 4 inches of snow on the ground, far surpassing its previous May record. Highways in some sections clogged with 15 inches of snow. In Vermont 50 percent of apple and peach crop ruined, while on Cape Cod, Mass., only 75 percent of strawberries were left to ripen. In New Hampshire loss in fruit crop was 90 percent. Up to 18 inches of snow was recorded during this storm.
Concordia, Kans.	13					Hail	Stones 2 inches in diameter; windows broken.
Franklin County, Nebr., southern portion.	13				20,000	Rain and flash flood.	Livestock lost in floods included small calves in pasture, 300 turkey hens, and 300 or more chicks. 4 bridges washed out and several damaged including approaches, several basements at Riverton flooded and damaged, and railroad tracks washed out in places.
Crawfordville and Parke, Hamilton, and Vanderburgh Counties, Ind.	14	12 p. m.			10,000	Wind	Loss in Crawfordville, \$10,000; slight damage elsewhere.
St. Louis, Mo., and vicinity.	14	7:44 p. m.			200,000	Hail, wind, and rain.	Trees down, streets flooded, houses and automobile roofs damaged by hail, loss in crops, and greenhouses wrecked. Water undermined the track causing the engine and a car of a freight train to leave the tracks. 2.15 inches of rain recorded in the 2-hour period.
Rockville, Danville, and Indianapolis, Ind.	14	p. m.			28,000	Wind	Trees and wires down; property damaged.
Louisville, Ky., and Jeffersonville, and New Albany, Ind., just across the Ohio River from Louisville.	15	12:02-12:50 a. m.				Thunderstorm and wind.	Considerable damage occurred in parts of these cities from strong wind, but practically all of minor nature such as breaking off of tree branches, damaging roofs here and there, uprooting a few trees, and interrupting electric service.
Jeffersonville, Ind.	15	1:50 a. m., C. W. T.	100	0	150,000	Tornado	This storm accompanied by a small tornado moving in from the northwest at about 12:50 a. m., C. S. T., and apparently dipping to the ground once, then lifting and dipping again about 1,320 yards further eastward as it passed over Jeffersonville, Ind.
Idabel, Okla., and vicinity.	15	8 a. m.		1		Tornado and hail.	2 buildings of American Car & Foundry Co. completely destroyed, 1 damaged, and a warehouse unroofed. Storm dipped at point of greatest destruction; path 300 yards long.
Austin, Tex., and vicinity.	15	9:37-9:50 p. m.			455,000	Hail	Several persons injured and several houses demolished.
Alachua and Orange Counties, Fla.	15				750	do.	Most damage in the northern and western portion of the city. Damage to automobiles, houses, and gardens, and other property.
Muskogee, Okla.	15					do.	Loss in corn, eggplant, and melon crops.
Centre Hall, Pa.	17	4 p. m.		0	100,000	Tornado	About 50 percent of aircraft used in crew training at the Army Airfield damaged. Suddenness with which the storm struck prevented removal of the planes from the flight line to the hangars.
Madison County, Fla.	17				4,000	Hail	Property damage.
Norfolk, Va., vicinity of.	18				10,000	do.	Loss in tobacco, corn, and melon crops.
Minnesota, south-central portion.	20				1,000,000	Rain and hail	Truck considerably damaged over limited area; some fields had to be replanted.
Montgomery to Dallas and Black Hawk Counties, Iowa.	21	p. m.		0	100,000	Heavy rain, small tornadoes and hail.	Albert Lea, Minn., hardest hit, where not a single house escaped without at least a window broken and not a roof in town escaped damage.
Hebron, Nebr., and vicinity.	26				350,000	Wind	In Austin, Minn., hailstones as large as moth balls stripped garden plants. Three florists with a total of 20 greenhouses reported that their buildings had been wiped out completely.
Shullsburg to Belmont, Wis.	27	7:20 p. m.		0		Tornado	In Redfield, 4 persons were injured, 1 seriously. Hail damage in Black Hawk County, \$100,000.
Broken Bow, Nebr., and vicinity.	27				400,000	Rain	Property damaged.
Cairo, Ill., and vicinity, and Ballard County, Ky.	29	9:06-10:40 a. m.			302,400	Thunderstorm and hail.	Outbuildings on 2 farms demolished; barn unroofed in Belmont.
Sioux Falls, Canton, and Beresford, S. Dak.	31	9 p. m.				Wind	4 inches of rain fell, causing a flash flood in Custer County, centering in Broken Bow.
South Dakota, eastern portion.	31	p. m.				Heavy rains.	In Illinois, crop loss, \$10,000; property damage, \$257,500; in Kentucky, crop loss, \$18,000, and property damage, \$18,000.

NOTE.—Late reports for May will appear in the June issue of this publication.

SOLAR RADIATION AND SUNSPOT DATA FOR MAY 1945

[Solar Radiation Investigations Section, I. F. HAND, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observations, and to summaries of data, are given in the January 1944 REVIEW, page 43. A list of the pyrheliometric stations also is given on page 45 of the same REVIEW.

TABLE 1.—Solar radiation intensities during May 1945
[GRAM CALORIES PER MINUTE PER SQUARE CENTIMETER OF
NORMAL SURFACE]

MADISON, WIS.

Date	Sun's zenith distance										75th mer. time
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	Air mass										
	A. M.					*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
May 1	mb.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mb.
May 5	4.6	0.53	0.69	0.71	0.81	1.08	1.35	1.38	1.38	1.38	4.6
May 9	5.8	.69	.79	.90	1.08	1.35	1.38	1.38	1.38	1.38	5.8
May 13	4.4	.70	.80	.90	1.08	1.35	1.38	1.38	1.38	1.38	4.4
May 18	5.6	1.16	1.35	1.55	1.85	2.15	2.45	2.75	3.05	3.35	5.6
May 19	7.4	.42	.43	.41	.74	1.32	1.32	1.32	1.32	1.32	7.4
May 23	8.5	.73	.84	.98	1.16	1.36	1.36	1.36	1.36	1.36	8.5
May 30	8.4	.79	.88	.98	1.15	1.39	1.39	1.39	1.39	1.39	8.4
Means		.64	.80	.86	1.06	1.36	1.36	1.36	1.36	1.36	
Departures		+.02	+.03	-.10	-.04	-.01	-.01	-.01	-.01	-.01	

LINCOLN, NEBR.

May 4	5.8				1.40	1.11	0.94	0.77	0.66	6.6
May 5	6.4				1.16	1.40	1.14	.94	.79	7.2
May 7	6.4				1.35	1.05	.79	.62	.52	6.6
May 17	7.2				1.40	1.13	.92	.79	.72	6.6
May 22	8.4				1.38					9.4
May 23	13.7				1.18					19.0
Means					(1.16)	1.35	1.11	.90	.74	.65
Departures					+.04	-.03	-.02	-.01	-.06	-.02

ALBUQUERQUE, N. MEX.

May 1	5.2	0.73	0.82	0.97	1.14	1.47	1.35	1.27	1.25	1.22	4.6
May 2	5.4	.82	.88	1.02	1.16	1.37	1.40	1.30	1.28	1.27	5.4
May 3	5.4	.67	.81	.88	1.05	1.39	1.23	1.19	1.14	1.12	5.8
May 4	5.0			.94		1.52					6.3
May 5	5.6	.63	.73	.88	1.02	1.51	1.23	1.20			7.3
May 6	4.4	.69	.77	.90	1.08	1.47					8.2
May 7	5.2					1.53					6.8
May 8	4.6	.73	.83	.93							4.4
May 9	4.4				1.07	1.40	1.31	1.24	1.21	1.18	3.8
May 10	4.8				1.10	1.41	1.27	1.25	1.20	1.16	5.4
May 11	4.4	.65	.73	.84	1.02						3.8

TABLE 1.—Solar radiation intensities during May 1945—Continued

ALBUQUERQUE, N. MEX.—Continued

Date	Sun's zenith distance										75th mer. time
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	Air mass										
	A. M.					*1.0	P. M.				
	e.	5.0	4.0	3.0	2.0		2.0	3.0	4.0	5.0	e.
May 12	mb.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mb.
May 13	2.9		.84	.94	1.08	1.41	1.26	1.21			6.0
May 16	4.0		.78	.99		1.42	1.42	1.42			5.0
May 17	5.4	.83	.92	1.01	1.17	1.46	1.26	1.17	1.11	1.06	4.6
May 19	5.0	.89	.99	1.10	1.21	1.42					4.2
May 20	4.0			.82	1.07	1.57			1.01	.90	4.2
May 21	3.3						1.12	1.05	.88	.94	3.3
May 22	3.4	.78	.84	.94	1.08						3.2
May 26	4.2	.73	.79	.87	1.04	1.44					4.4
May 27	3.3						1.22				4.2
May 28	4.6						1.20	.96	.79		3.2
May 29	2.7				1.13		1.28				4.0
May 30	3.4						1.09		.60	.49	3.8
May 31	3.0	.86	.92	1.01		1.40	1.14	1.05	.95	.84	3.2
Means	2.3	.80	.88	1.01	1.12	1.42			1.03	.97	
Departures		.75	.84	.94	1.10	1.45	1.24	1.16	1.04	1.01	
		-.08	-.07	-.09	-.09	-.04	+.01	+.03	+.04	+.07	

BLUE HILL, MASS.

May 2	8.7								0.66		9.4
May 7	10.2						0.94		.60		7.2
May 9	6.4	0.32	0.44	0.60	0.91		1.02		.68	0.56	4.6
May 11	6.9						1.13		.87		4.4
May 12	7.2		.87	.99	1.14						5.1
May 14	11.8	.49	.59	.75							11.0
May 20	7.2	.83	.94	1.04	1.19	1.45		1.00		.77	5.6
May 23	10.2	.71	.82	.95	1.12				.73		9.8
May 24	9.1	.70	.79				1.13	.97	.73	.61	5.6
May 26	11.4	.60	.66	.83	1.03		.87	.66	.49	.38	11.4
May 28	12.3					1.36					9.8
May 30	11.4						1.18		.88	.76	8.4
May 31	7.2	.72			1.01		1.24	1.05	.94	.85	4.6
Means		.62	.73	.88	1.08	(1.40)	1.07	.92	.73	.66	
Departures		-.01	-.04	-.07	-.01	+.04	+.01	+.05	.00	+.02	

BOSTON, MASS.

May 9	6.1				0.91	1.42					7.4
May 14	11.0	0.44	0.50	0.67	.88						9.4
Means		(.44)	(.50)	(.67)	(.90)	(1.42)					

RATIO, BOSTON/BLUE HILL, ON COMPARABLE DATES

	(0.90)	(0.85)	(0.89)	(1.00)							
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* Extrapolated.

TABLE 2.—Daily totals and weekly means of solar radiation (direct + diffuse) received on a horizontal surface

(Gram calories per square centimeter)

Date	Washington, D. C.	Madison, Ws.	Lincoln, Nebr.	E. Lansing, Mich.	New York, N. Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Ithaca, N. Y.	State College, Pa.	Put-in-Bay, Ohio	E. Wareham, Mass.	Davis, Calif.	Boulder, Colo.	Tucule, Utah
1945	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.
Apr. 30.....	508	700	503	348	304	656	402	688	120	489	579	556	576	102	335	401	506	254	720	567	638
May 1.....	410	526	218	389	50	632	325	143	267	486	506	578	536	277	131	334	682	465	714	667	825
May 2.....	594	76	423	271	205	644	359	365	492	234	624	449	632	507	472	634	497	606	701	575	788
May 3.....	64	385	563	40	125	634	588	224	490	188	634	492	606	471	201	66	80	472	693	700	819
May 4.....	354	670	697	136	45	575	513	741	24	177	449	496	628	120	236	211	97	100	703	586	561
May 5.....	392	752	710	162	368	646	581	732	307	518	584	466	584	595	206	279	246	499	442	442	647
May 6.....	363	664	492	559	283	630	599	624	415	666	663	602	597	392	110	214	625	632	706	290	547
Mean.....	383	539	528	272	198	634	481	502	302	394	589	520	594	352	242	319	390	433	668	542	691
Departure.....	-93	+95	+76	-53	-247	+14	+53	+92	-79	-49	+57	-40	+65	-115	-163	-135	-4	-26	+26	-----	-----
May 7.....	692	296	647	211	478	596	455	252	378	258	667	457	514	437	665	580	473	444	674	187	831
May 8.....	391	707	225	494	122	654	536	398	324	682	618	299	376	384	403	572	670	494	638	96	786
May 9.....	694	413	49	511	625	684	504	176	508	410	614	527	515	686	504	679	543	640	667	578	782
May 10.....	71	677	347	316	54	610	618	422	86	178	236	396	601	116	62	74	132	123	700	647	414
May 11.....	705	270	235	491	753	698	423	582	393	424	437	184	476	392	690	743	679	466	724	444	792
May 12.....	683	379	511	194	562	528	391	579	498	160	361	152	264	513	468	620	200	596	176	594	616
May 13.....	493	619	240	520	268	457	456	692	112	503	379	524	452	129	185	350	561	121	565	519	790
Mean.....	533	480	322	391	409	604	483	443	341	386	473	363	457	380	421	517	468	412	592	438	716
Departure.....	+65	+29	-124	+61	-31	-32	+33	-8	-75	-80	-92	-200	-87	-91	-22	+60	+71	-57	-85	-----	-----
May 14.....	680	163	71	39	591	522	559	392	541	544	428	518	596	618	281	625	288	689	483	99	591
May 15.....	582	594	509	179	461	711	613	68	524	388	529	573	638	613	304	517	155	361	747	99	755
May 16.....	654	293	417	68	453	671	584	51	241	414	227	574	676	322	217	522	52	424	610	299	736
May 17.....	374	265	759	52	449	731	624	70	105	126	475	480	662	199	291	200	65	282	675	445	678
May 18.....	542	767	396	276	297	643	617	741	74	108	435	566	698	124	273	407	125	154	648	764	705
May 19.....	543	704	438	682	85	613	612	505	74	636	392	570	664	100	319	598	743	224	782	686	767
May 20.....	753	332	664	382	724	733	619	645	669	682	312	599	702	726	714	746	574	791	720	156	588
Mean.....	590	431	465	240	437	661	604	353	318	414	400	554	661	386	343	516	283	418	667	364	697
Departure.....	+111	-38	-44	-91	-28	+13	+147	-122	-120	-74	-192	-7	+114	-116	-117	+58	-127	-62	-23	-----	-----
May 21.....	692	315	127	559	496	513	421	412	220	632	477	635	698	261	427	679	670	352	634	411	684
May 22.....	593	478	759	79	562	600	315	780	573	656	359	652	711	638	485	514	201	673	696	488	529
May 23.....	650	757	588	565	618	719	412	474	489	704	267	640	714	540	159	525	752	642	715	527	641
May 24.....	745	565	578	566	526	741	581	101	576	642	314	686	733	604	742	736	756	571	755	673	857
May 25.....	652	352	714	211	608	706	413	554	538	314	507	687	711	534	710	677	399	616	728	616	753
May 26.....	104	595	234	286	556	726	282	598	582	620	529	617	728	670	562	228	547	707	681	686	555
May 27.....	118	177	275	445	88	742	496	450	307	655	595	556	716	368	96	209	602	456	636	344	833
Mean.....	508	463	468	388	494	678	417	481	469	603	436	639	716	517	454	510	561	574	692	535	693
Departure.....	+15	-28	-71	+32	+30	+11	-35	+13	-3	+89	-169	+129	+162	+57	-26	+56	+94	+72	+20	-----	-----
May 28.....	415	575	708	383	285	724	328	99	163	556	400	634	546	190	272	363	694	392	725	322	827
May 29.....	649	647	459	407	736	448	292	394	604	276	397	431	430	628	634	712	542	590	480	101	817
May 30.....	749	807	658	658	769	318	372	580	539	452	304	616	118	528	600	813	787	665	294	543	685
May 31.....	670	290	532	368	764	579	299	715	596	600	532	455	811	707	632	797	435	712	480	612	764
June 1.....	596	174	708	133	265	707	398	-----	628	640	689	473	676	703	338	241	280	649	757	470	830
June 2.....	521	147	207	235	235	645	501	-----	379	439	576	212	566	329	204	340	395	280	418	450	678
June 3.....	723	287	446	63	71	610	457	-----	274	412	374	557	398	257	73	304	59	398	514	357	366
Mean.....	618	418	531	317	446	576	378	424	455	482	466	487	435	478	400	511	456	522	524	408	713
Departure.....	+106	-72	+5	-71	-53	-92	-103	-57	-72	-55	-113	-54	-91	-60	-92	+48	-51	-26	-128	-----	-----

ACCUMULATED DEPARTURES ON JUNE 3, 1945

+1,603	+3,031	-3,899	-2,128	-2,303	+735	+154	+280	-280	-3,332	-5,838	-5,257	+5,341	-3,507	-2,653	+4,004	+1,029	-147	-154	-----	-----
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POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MAY 1945

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.) Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, areas of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total area of spots and groups and total spot count.

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic	Area of spot or group	Spot count	Plate quality	Observatory
			Dif- ference in longi- tude	Lon- gi- tude	Lat- tude		
1945							
May 1	h m		°	°	°		
	10 26	7744	-63	332	-25	64	145
		7743	-49	346	-19	50	12
		7741	-3	32	-20	17	97
		7741	0	35	-18	15	242
		7741	+2	37	-18	14	218
		7741	+4	39	-19	15	97
		7740	+40	75	-20	42	6
		7739	+73	108	-32	73	97
			(35)	(-4)			914
							33

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR MAY 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic	Area of spot or group	Spot count	Plate quality	Observatory
			Dif- ference in longi- tude	Lon- gi- tude	Lat- tude		
1945							
May 2	h m		°	°	°		
	10 46	7744	-50	332	-25	53	109
		7745	-46	336	+22	51	6
		7743	-36	346	-18	38	12
		7741	+8	30	-20	18	61
		7741	+12	34	-18	19	218
		7741	+14	36	-18	20	170
		7741	+16	38	-19	22	97
		7740	+57	79	-17	58	6
		7739	+85	107	-32	85	48
			(22)	(-4)			727
							38
							12
							43
							27
							24
							73
							30
							218
							3
							194
							109
							6
							2
			(9)	(-4)			733
							27

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR
MAY 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic	Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- ference in longi- tude	Longi- tude	Latitude	Distance from center of disk	
1945 May 5	h m	(*)	°	°	°	°	
	15 10	7746	-32	321	-25	39	12
		7746	-25	328	+23	36	3
		7744	-22	331	-26	30	85
		7741	+40	33	-17	42	48
		7741	+43	36	-18	45	339
			(353)	(-4)			520
5	10 8	7749	-12	330	-23	22	12
		7744	-12	330	-26	26	73
		7741	+47	29	-21	49	61
		7741	+50	32	-16	51	86
		7741	+52	34	-17	53	145
		7741	+54	36	-18	55	194
			(342)	(-4)			521
6	10 27	7749	+1	330	-23	20	6
		7744	+1	330	-26	21	48
		7748	+19	348	-19	23	12
		7748	+21	350	-19	25	24
		7747	+43	12	-18	45	6
		7741	+67	36	-17	67	194
		7741	+69	38	-18	69	194
		7741	+71	40	-16	71	24
			(329)	(-4)			508
7	10 40	7749	+11	327	-23	22	6
		7744	+14	330	-25	25	48
		7748	+31	347	-18	34	36
		7748	+38	354	-18	40	97
		7741	+80	36	-17	80	388
			(316)	(-4)			575
8	12 19	7749	+27	329	-23	32	12
		7749	+29	331	-23	33	12
		7744	+29	331	-27	36	24
		7748	+45	347	-18	48	24
		7748	+52	354	-18	54	48
		7747	+70	12	-15	71	12
			(302)	(-3)			132
9	10 24	7749	+40	329	-23	43	24
		7748	+58	347	-19	60	24
		7748	+55	354	-19	67	48
			(289)	(-3)			96
10	9 13	7750	+21	298	-19	26	12
		7750	+23	300	-19	27	6
		7749	+50	327	-23	52	6
		7748	+70	347	-19	72	24
		7748	+78	355	-19	78	24
			(277)	(-3)			72
11	10 25	7751	+19	282	-18	23	6
		(*)	+42	305	-27	47	6
			(263)	(-3)			12
12	10 21	7750	+53	303	-19	55	12
			(250)	(-3)			12
13	13 28		No spots				
14	10 37	7753	-88	135	-27	88	24
		7753	-80	143	-25	80	12
		7753	-78	145	-26	79	12
		7752	+16	239	-22	24	6
		(*)	+50	273	-28	54	12
		7750	+80	303	-18	80	12
			(223)	(-3)			78
15	10 28	7753	-72	138	-28	73	97
		7753	-63	147	-27	66	109
		7752	+29	239	-23	34	73
		7752	+31	241	-23	36	61
			(210)	(-3)			340
16	10 44	7755	-70	127	-17	70	6
		7753	-58	139	-27	60	97
		7753	-52	145	-27	56	24
		7753	-48	149	-27	53	73
		7754	-9	188	+25	28	12
		7752	+42	239	-22	45	97
		7752	+44	241	-19	47	73
			(197)	(-2)			382

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR
MAY 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic	Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- ference in longi- tude	Longi- tude	Latitude	Distance from center of disk	
1945 May 17	h m		°	°	°	°	
	10 44	7755	-56	127	-17	58	12
		7753	-46	137	-27	51	24
		7753	-39	144	-25	43	24
		7753	-35	148	-27	40	61
		7752	+55	238	-22	57	121
		7752	+60	243	-19	61	97
			(183)	(-2)			339
18	10 23	7757	-58	112	+28	63	6
		7757	-57	113	+27	62	6
		7756	-43	127	-9	43	12
		7755	-42	128	-17	44	6
		7753	-28	142	-25	35	6
		7753	-21	149	-27	32	48
		7752	+69	239	-23	70	242
		7752	+74	244	-21	74	158
			(170)	(-2)			484
19	10 38	7758	-63	94	-36	69	6
		7757	-42	115	+27	48	12
		7757	-39	118	+29	47	12
		7756	-29	128	-10	30	24
		7753	-7	150	-27	27	12
		7753	-5	152	-27	26	36
		7752	+81	238	-22	81	194
			(157)	(-2)			296
20	12 38	7758	-45	98	-36	53	6
		7759	-28	115	-35	42	12
		7756	-13	130	-11	15	36
		7753	+1	144	-24	22	6
		7753	+5	148	-28	27	12
		7753	+10	153	-28	28	36
			(143)	(-2)			108
21	10 27	7759	-15	116	-35	36	6
		7757	-11	120	+29	32	36
		7759	-9	122	-35	35	6
		7756	0	131	-11	9	24
		7753	+18	149	-27	32	12
		7753	+22	153	-28	33	24
			(131)	(-2)			108
22	10 27	(*)	-27	90	-35	41	6
		(*)	-15	102	-29	31	12
		7757	-4	113	+27	30	12
		7757	0	117	+29	31	24
		(*)	+20	137	-35	37	12
		7753	+33	150	-27	40	36
			(117)	(-2)			102
23	10 49	7763	-84	20	-15	84	48
		7762	-64	40	-18	65	12
		7761	-58	46	-14	59	6
		7757	+11	115	+27	31	73
		7757	+15	119	+27	33	24
		7760	+33	137	-32	42	12
		7753	+48	152	-26	52	6
			(104)	(-2)			181
24	10 33	7763	-69	22	-16	69	97
		(*)	-58	33	-22	60	12
		(*)	-55	36	-25	58	6
		7757	+24	115	+28	38	73
		7764	+36	127	-19	37	36
			(91)	(-2)			224
25	10 16	7763	-56	22	-16	57	97
		7762	-41	37	-22	46	24
		7757	+34	112	+28	45	48
		7764	+52	130	-19	54	61
			(78)	(-1)			230
26	11 55	7763	-44	20	-16	45	16
		7763	-42	22	-16	43	97
		7766	+11	75	-26	27	12
		7757	+50	114	+28	57	6
		7764	+62	126	-19	63	24
		7764	+63	127	-17	64	12
		7764	+65	130	-18	67	48
		7765	+78	142	-18	78	24
			(64)	(-1)			239

See footnotes at end of table.

POSITIONS, AREAS, AND COUNTS OF SUPPORTS FOR PROVISIONAL RELATIVE SUNSPOT NUMBERS FOR
MAY 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic			Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- fer- ence in longi- tude	Lon- gi- tude	Lat- tude				
1945 May 27	A m 12 10	7763 7766 7766 7764	-28 +17 +21 +78	22 67 71 128	-16 -30 -19 -19	32 33 27 78	73 6 6 97	1 1 1 1	P Mt. Wilson.
				(50)	(-1)		182	4	
28	12 42	7763	-15	22	-16	20	61	2	F U. S. Naval.
				(37)	(-1)		61	2	
29	10 30	7763 7767 7767 7767 7767	-2 +16 +18 +20 +21	23 41 43 45 46	-16 +31 +32 +31 +27	15 36 37 37 35	24 24 36 24 6	1 5 3 6 1	G Do.
				(25)	(-1)		114	16	
30	10 26	7768 (*) (*) 7763 7767	-78 -57 -18 +12 +31	294 315 354 24 43	-7 -35 +21 -17 +31	78 62 28 20 43	48 12 6 24 48	2 1 1 6 12	F Do.
				(12)	(-1)		138	22	
31	10 25	7768 (*) 7763 7767	-65 -55 +25 +43	293 303 23 41	-7 -22 -17 +30	65 57 30 51	24 6 12 73	2 1 2 18	G Do.
				(358)	(-1)		115	23	

Mean daily area for 31 days=276

* Not numbered.

† Data from Mount Wilson charts.

VG=very good; G=good; F=fair; P=poor.

[Based on observations at Zurich except as indicated by an asterisk. Data furnished through the courtesy of Prof. W. Brunner, Swiss Federal Observatory, Zurich, Switzerland]

April 1945	Relative numbers	April 1945	Relative numbers	April 1945	Relative numbers
1-----	b50	11-----	0	21-----	31
2-----	d57	12-----	0	22-----	31
3-----	52	13-----	Ec7	23-----	a38
4-----	50	14-----	10	24-----	29
5-----	38	15-----	10	25-----	d52
6-----	32	16-----	a20	26-----	a46
7-----	28	17-----	Ec21	27-----	56
8-----	8	18-----	23	28-----	55
9-----	8	19-----	d32	29-----	71
10-----	7	20-----	32	30-----	d67

Mean, 30 days=32.0

a Passage of an average sized group through the central meridian.

b Passage of a large group through the central meridian.

c New formation of a group developing into a middle sized or large center of activity; E, on the eastern part of the Sun's disc; W, on the western part; M, in the central circle zone.

d Entrance of a large or average sized center of activity on the east limb.

Chart I. Departure (°F.) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, May 1945

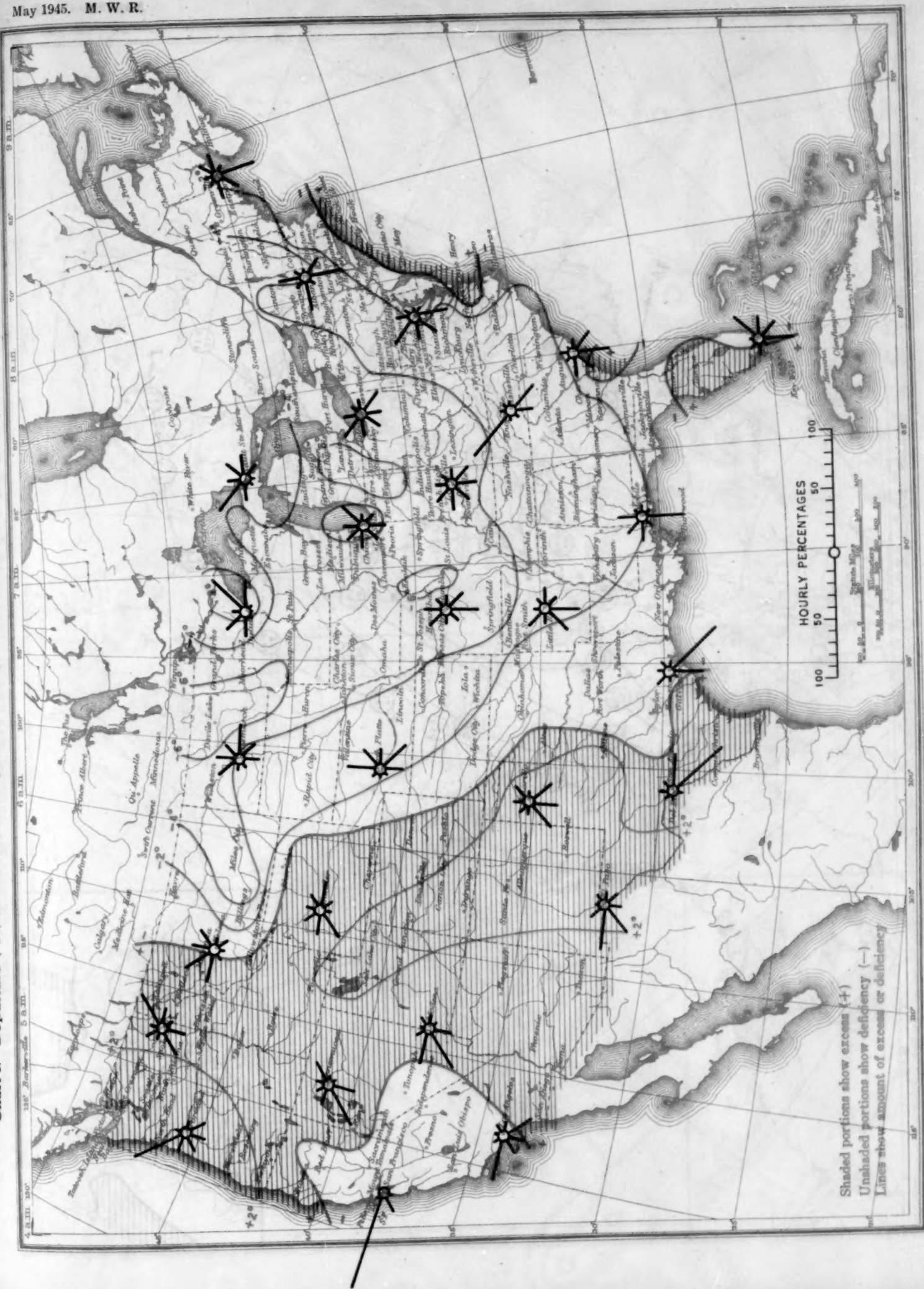
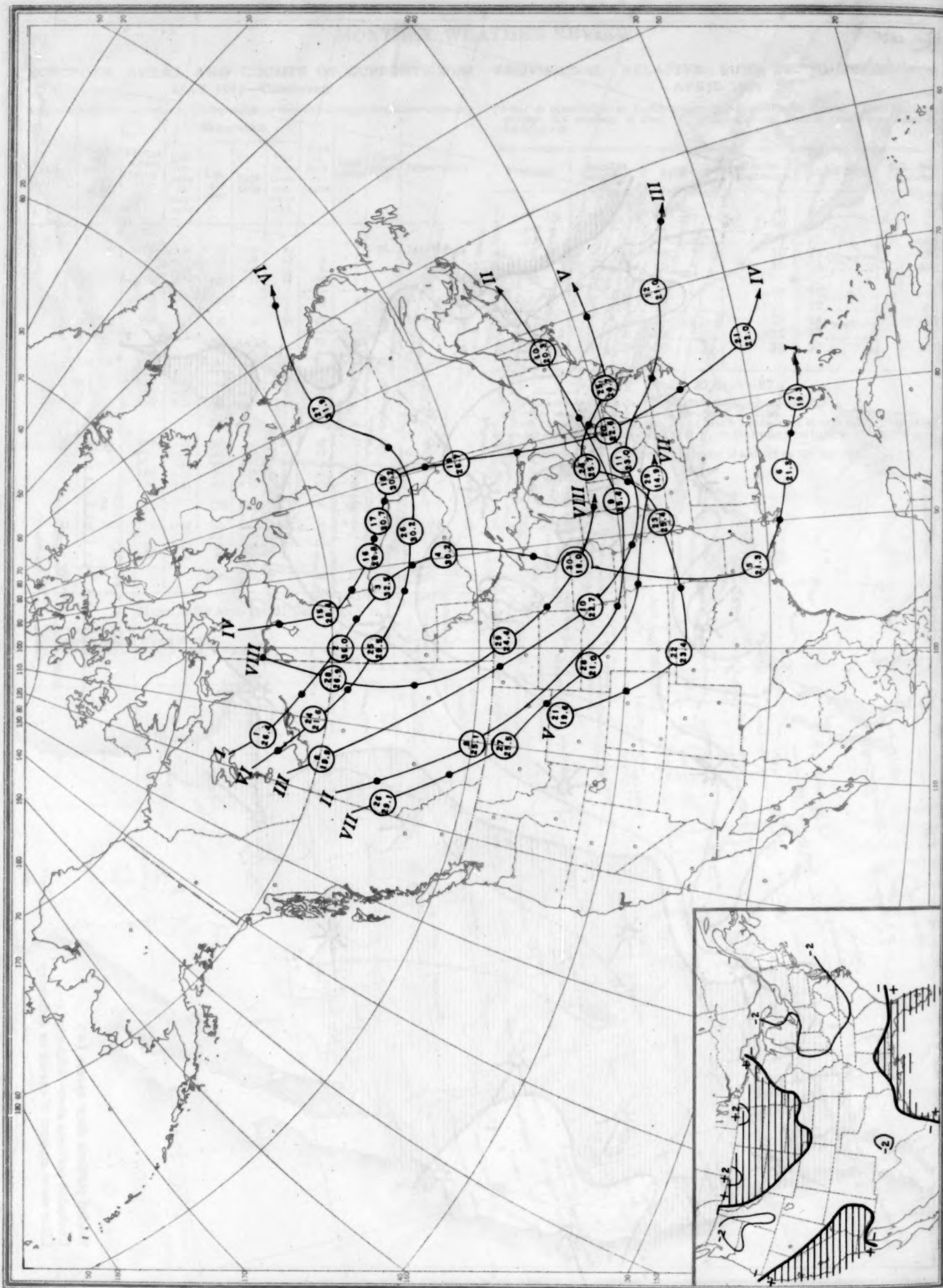


Chart II. Tracks of Centers of Anticyclones, May 1945. (Inset) Departure of Monthly Mean Pressure from Normal
(Plotted by D. R. Harris)

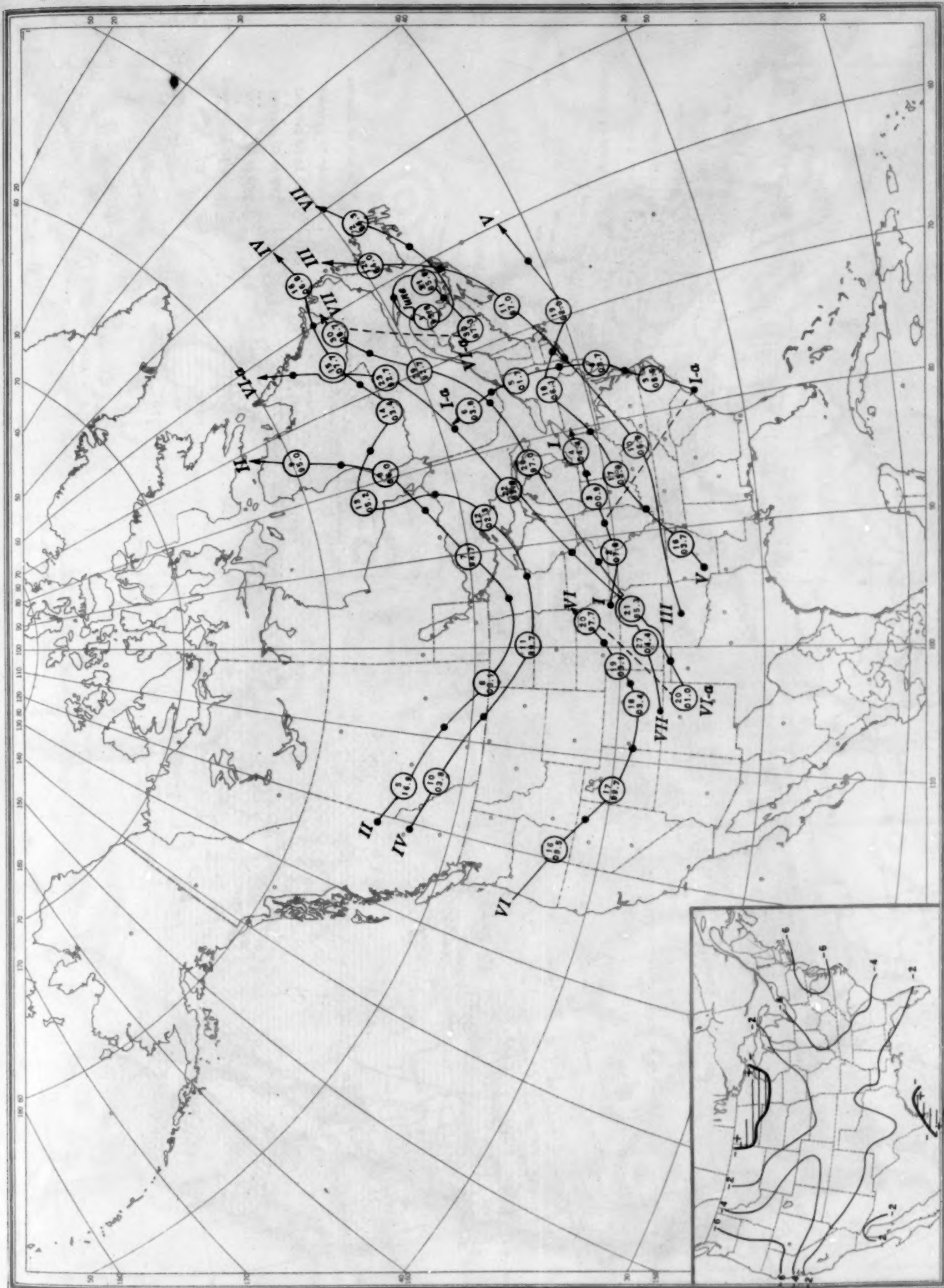


Circle indicates position of anticyclone at 7:30 a. m. (76th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (76th meridian time).

Chart III. Tracks of Centers of Cyclones, May 1945. (Inset) Change in Mean Pressure from Preceding Month

Chart III. Tracks of Centers of Cyclones, May 1945. (Inset) Change in Mean Pressure from Preceding Month

(Plotted by D. R. Harris)



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, May 1945

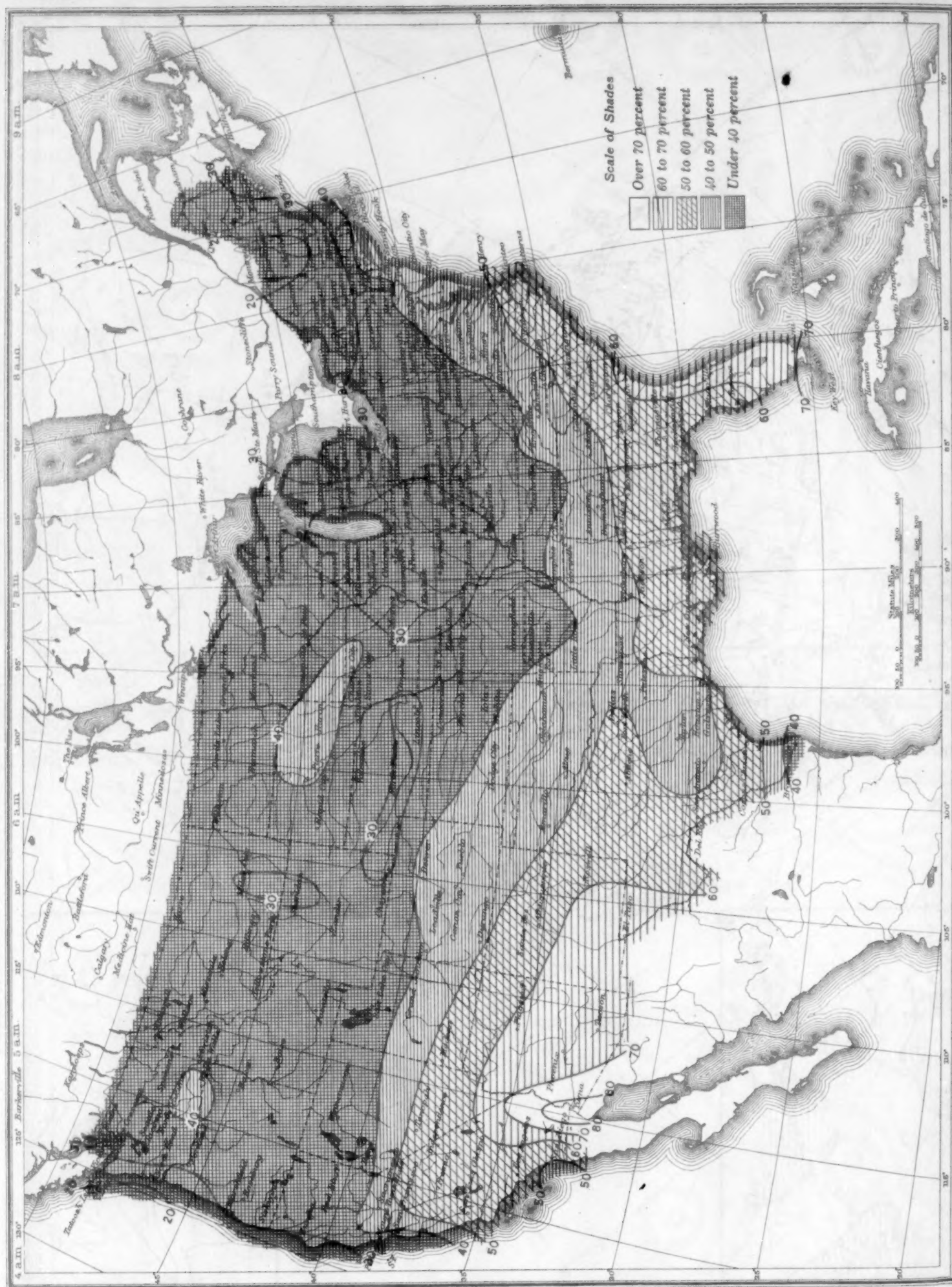


Chart V. Total Precipitation, Inches, May 1945. (Inset) Departure of Precipitation from Normal

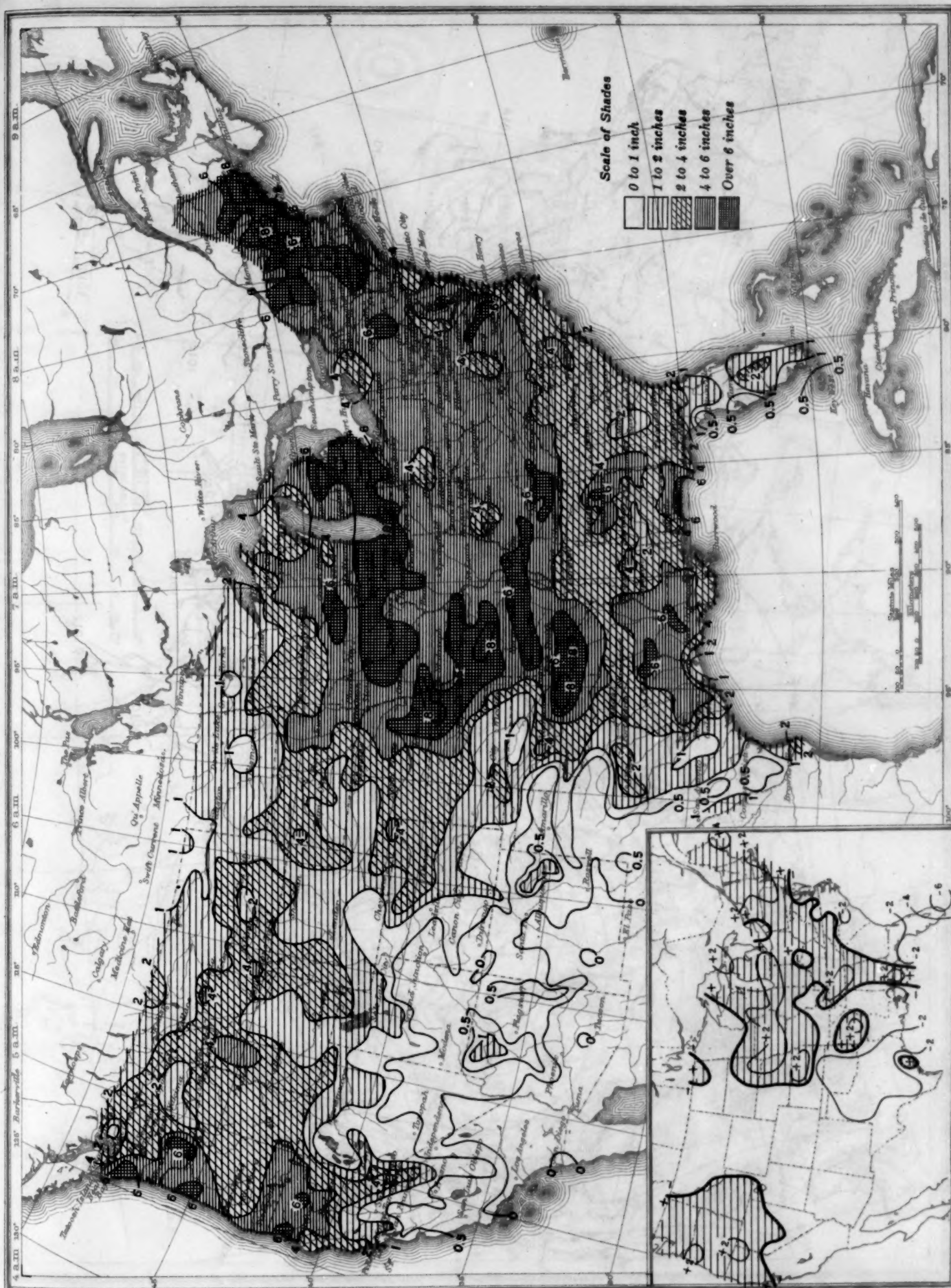


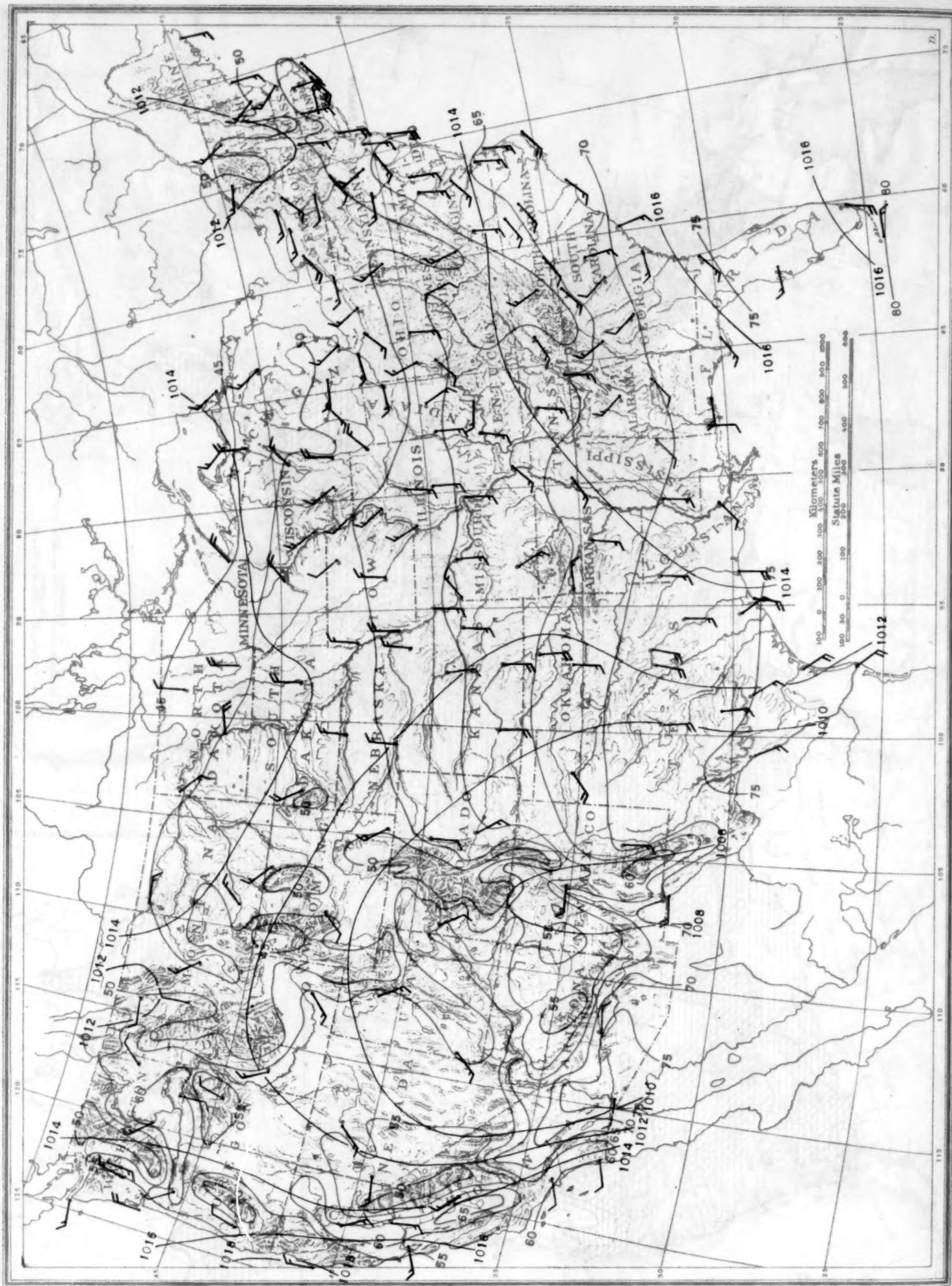
Chart VI. Isobars (mb), at Sea Level and Isotherms ($^{\circ}\text{F}$) at Surface; Prevailing Winds, May 1945Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms ($^{\circ}\text{C}$.), and Resultant Winds for 1,500 Meters (m. s. l.) May 1945

Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) May 1945
 Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 a. m. (E. S. T.).

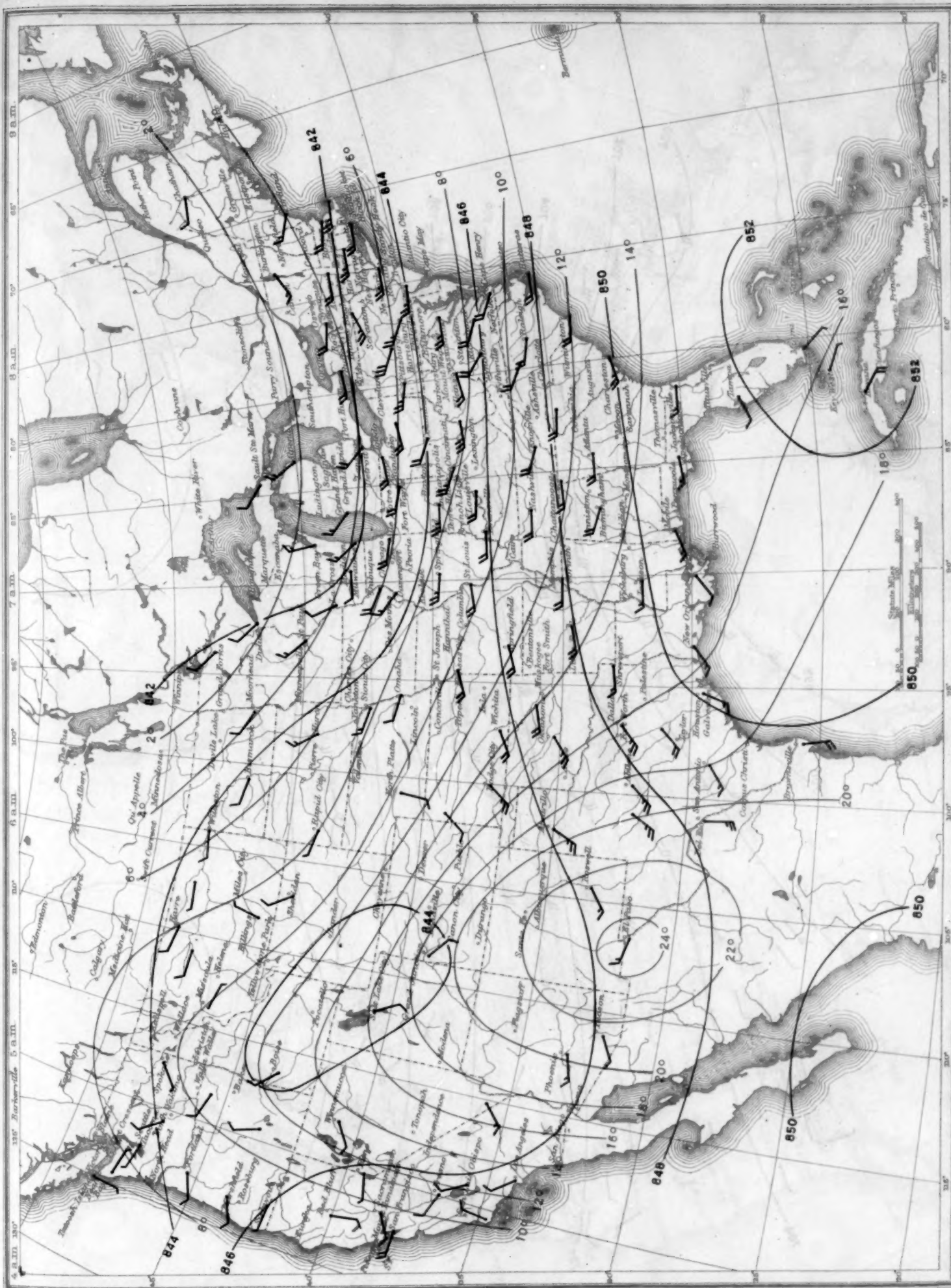


Chart IX. Isobars (mb), Isotherms ($^{\circ}\text{C}$.), and Resultant Winds for 3,000 Meters (m. s. l.) May 1945
 Isobars and isotherms based on radiosonde observations 11:00 p. m. at (E. S. T.) and winds based on pilot-balloon observations at 5:00 a. m. (E. S. T.).

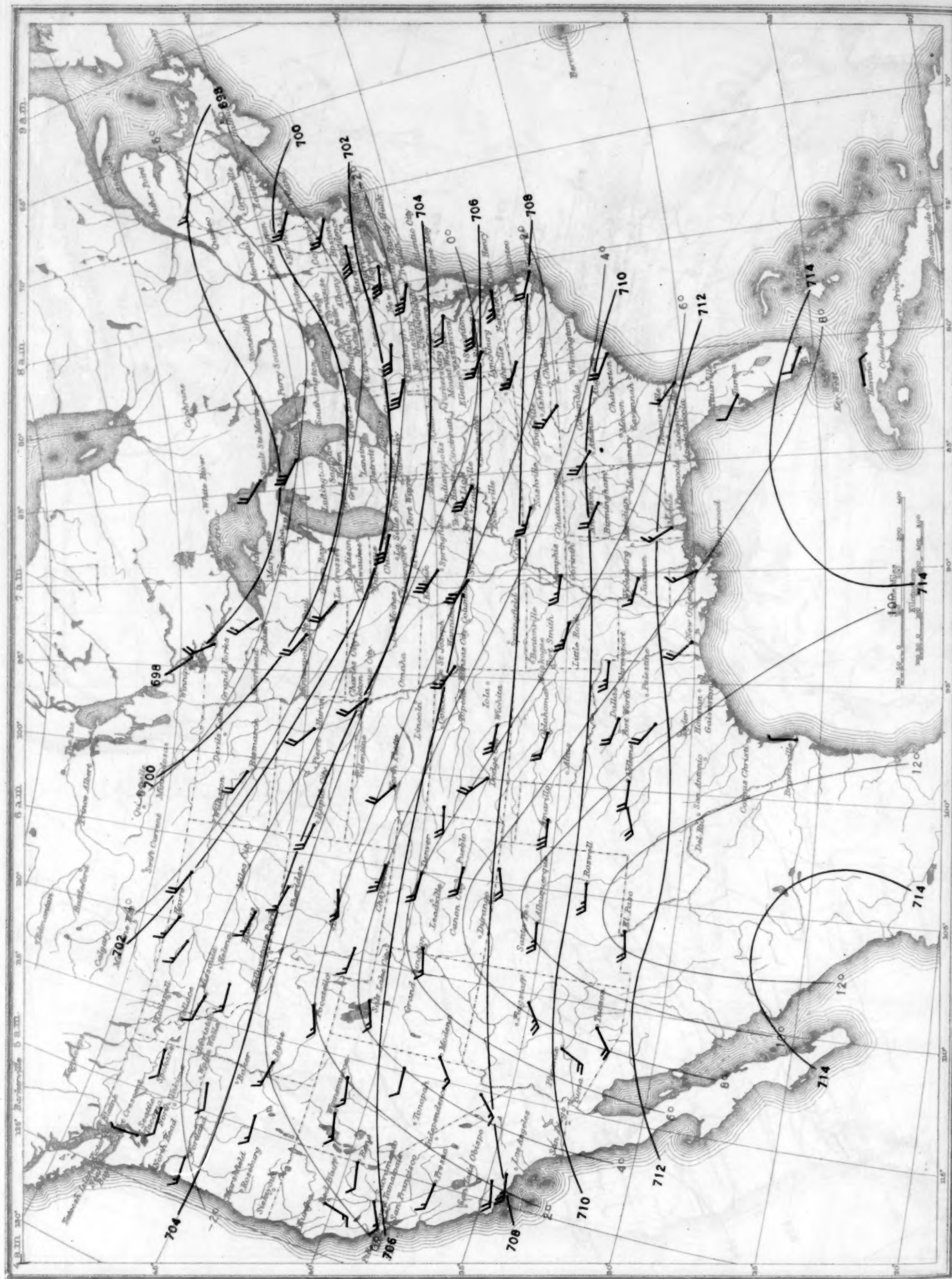


Chart X. Isobars (mb), Isotherms ($^{\circ}\text{C}$.), and Resultant Winds for 5,000 Meters (m. s. l.) May 1945

Chart X. Isobars (mb), Isotherms (°C.), and Resultant Winds for 5,000 Meters (m. s. l.) May 1945
Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.)

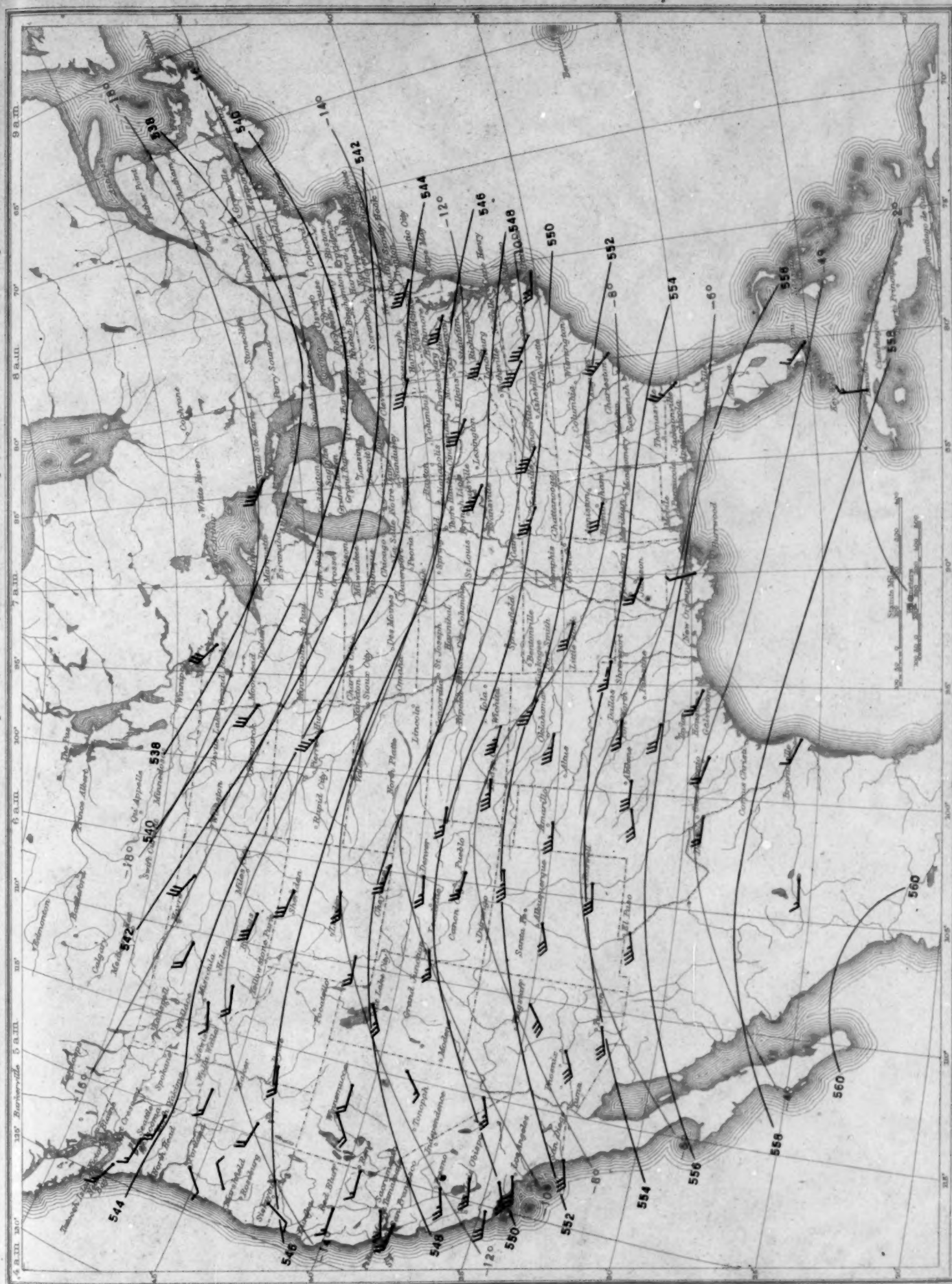


Chart XI. Isobars (mb), Isotherms ($^{\circ}\text{C}.$), and Resultant Winds for 10,000 Meters (m. s. l.) May 1945
Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot-balloon observations at 5:00 p. m. (E. S. T.).

